

JPRS-EEI-84-072

18 June 1984

East Europe Report

ECONOMIC AND INDUSTRIAL AFFAIRS

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18 June 1984

EAST EUROPE REPORT
ECONOMIC AND INDUSTRIAL AFFAIRS

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ENGINEERING COMPLEX IN CEMA CONTEXT DISCUSSED

Prague NOVA MYSL in Czech No 3, 1984 pp 69-79

[Article by Bohumil Siroky: "The CEMA Engineering Complex"]

[Text] One of the most important characteristics of the current stage of development of the CEMA member countries is their efforts to turn to an intensive type of economic development. This is mainly a question of the accelerated utilization of the results of the scientific and technical revolution, of an assertive restructuring policy, of an increased level of economic balancing, of a reduction in disproportion between the resolution of many socioeconomic and industrial problems, any of incentives to utilize all resources and under-utilized capacities.

As a result of historical developments and other considerations, a structure of national economic and production complexes has been formed in which the engineering complex plays an important role, in the sense that it is both helping to generate the conditions for the shift to intensive economic development, and in the sense that it is also intensifying its own production base. The engineering complex is formed in accordance with the general strategy for the development of the entire national economy. It is characterized by certain features which stem from the achieved level of economic development, the previously existing production structure, the tautness of the balance between investment and labor resources, and from the level of integration in the international division of labor.

The shift to an intensive type of development is making it necessary to be very flexible about reallocating factors of production among the various branches of the engineering complex, and in the development of a structure of priority branches in each country which will reflect its most favorable developmental factors. The formation of priority sectors which will assure increased economic effectiveness in the interest of intensifying the national economic complex is especially important for states with a high export quota of engineering products and significant imports to meet domestic requirements.

This reality makes it necessary to take notice of the fact that the shift in the structure of the engineering complex, the development of a group of priority and effective sectors, and their use as the basis for the formation of special

groups of export products is most evident in those countries with the highest level of economic development. A shift in the structure of the engineering complex increases its level of integration in the international division of labor, the most important form of which is international specialization and production cooperation. Its role as a qualitative factor in the industrial development of the CEMA member countries continues to increase, because these countries must assure an acceleration of research and development progress and the priority development of products which conserve resources and increase value added on an ongoing basis. This change into an instrument for improving the structure of the engineering complex makes the task of integrating it into the restructuring policies of the CEMA member countries a pressing one.

Along with tension in the investment area, the 1980's have brought with them a worsening deficit in labor force resources, especially as a result of the stabilization of employment levels in industry and the evolution of the demographic situation. Under these conditions, the problem of increasing the efficiency of the basic factors of production is becoming more acute, and the field for activity is expanding for international specialization and production cooperation within the engineering complex of the CEMA member countries. This joint activity is pursuing the objective of allocating the labor resources in the engineering sectors of the CEMA member countries in the economically most rational manner. At one level, this objective is being met by a long-range priority program of cooperation in engineering and its subprograms, which specify the areas for cooperation among the CEMA countries.

The engineering sectors of the CEMA member countries are characterized by a growth rate of production that is higher than the growth rate for industry as a whole. The volume of engineering production in the CEMA countries in the 1971-1982 period increased by a factor of 2.5, while the overall volume of industrial production for these same years increased by 82 percent. As a result of this rapid development of the engineering complex, its share of the gross industrial product in the European CEMA countries has increased. Currently the engineering sectors of the CEMA countries account for more than one-third of gross production.

In the process of the intensification of the economic development of the CEMA member countries, a certain connection is evident between the level of economic development and the average growth rate of engineering production and its share of overall industrial production. This connection is expressed as a reduction in the growth rate and gradual stabilization of the share of engineering in the entire industrial complex. This is manifested in different ways in different countries and depends on the influence of differentiation in the product mix structure of engineering production (the level of participation of the engineering complex in the international division of labor, its capability to compete on international markets, etc.).

The dynamic development of general engineering in the European states of CEMA has affected the increased share of world engineering production accounted for by this group of countries. In the second half of the 1970's, the CEMA member

countries developed a strong engineering complex by world standards; this is clear from the share of work engineering production accounted for by the engineering output of these countries, which reached about 38 percent in 1979. During the same period their share of total worldwide engineering employment reached 32 percent. These data on share of production and share of employees indicate that the European CEMA countries have become an important group of countries in world engineering production. An analysis of the place of the engineering complex of the European CEMA countries within the structure of their industrial sectors and the strengthening of their position in world output of engineering production leads to the conclusion that the productive potential of the engineering industries of these countries is developing favorable conditions for the active participation of the engineering complex in the international division of labor.

The external economic relations of the engineering complexes of the CEMA member countries reflect their priority orientation toward the market of the community. By the same token, however, its share of world trade in engineering products clearly lags behind its potential.

Intensifying development while maintaining high growth rates, ongoing structural improvements, and the assurance of a high level of technical sophistication for engineering output requires more activity by the CEMA member countries in work force management and investment policy. The utilization of the work force and investments in the engineering complex is evident in the positive trends in the effectiveness of expanded production and increased shares of national income.

The level of economic and industrial development and the structure of the engineering sector influences the proportions and allocation of productive resources among the basic branches of the engineering complexes. A majority of the labor resources is focused on the production of machinery, equipment and transportation equipment. Recently the share of electronics and electrical engineering products has increased and that of the metalworking sector has declined. In both sectors, in the meantime, labor productivity has increased, especially as a result of the application of the results of research and development progress.

The level of development of the engineering complexes and their mutual integration depends not only on the structure, sophistication and developmental trends of these complexes but also on how these complexes correspond to the requirements of research and development progress, which determines the intensification of national economic complexes. At the present time the influence of the scientific and technical revolution is resulting in the rationalization and modernization of the structure of engineering production. The basic content of this process consists of the broadest possible utilization of the potential of every country for the comprehensive implementation of the results of research and development progress. An analysis of the overall evolution of the structure of engineering indicates that the general trend over the past 10 years has been one of an increase in the share of engineering as a whole, electronics and electrical engineering, with a relative decline in the share of transportation engineering.

In the mid-1960's the traditional branches of the engineering complex were developing on the basis of the broad application of technical innovations, with priority development directed toward branches with a high dependency on research and development. In individual countries, however, structural changes took place in various ways. Differences stemmed from the sophistication and level of development of fuel, power, and raw materials bases, the peculiarities and traditions of national production, the availability of a qualified work force, specialized research and development capabilities, etc.

In the 1970's the engineering complexes of the CEMA member countries developed in the direction of capital intensive technical development, which led to a gradual increase in the level of equipment available at facilities and to improved labor productivity. The high growth rate of engineering production was further augmented by increasing employment by hiring supplementary workers. The necessity for the comprehensive mechanization and automation of production processes, the setting up of production facilities with equipment required by the demands of the scientific and technical revolution, the industrialization of all aspects of material production and scientific research, have resulted in the accelerated growth of the capital stock in relation to that of labor productivity.

In the past decade and at the start of the 1980's it has become increasingly necessary that priority be given to the resolution of tasks related to the research and development revolution, the accelerated outfitting of the engineering complex, as well as other sectors of the national economy and industry, with the most modern equipment and technologies. The realization of this task is an important condition for the resolution of general questions of socio-economic development and improvements in the structure of the standard of living of the inhabitants of the CEMA member countries. However, the situation in the coordination of the basic objectives of the engineering sector, the formulation of a realistic policy and the concentration of resources in fundamental, crucial areas has not as yet corresponded to the complexity of these problems. The mutual interaction of complexes on the basis of contractual forms of international specialization and production cooperation has failed to resolve the pressing issues of improving the international division of labor, which would create the conditions for accelerated research and development in engineering and vice versa. Currently the preconditions have been created for the restructuring of the engineering complexes and their participation in the international socialist division of labor.

A characteristic feature of the specialization of engineering production in the CEMA member countries is an orientation toward branches with a high emphasis on the research and development base and on the intensification of internal sectoral specialization, which will assist in the associating of sectoral structures. An increasing degree of uniformity will make it possible to reduce labor-intensive production in favor of production dependent on the utilization of science and technology. At the present time such sectors (engineering, electronics, transportation equipment production) accounts for 40-50 percent of overall industrial production in the CEMA member countries.

The important role of the engineering complexes in the development of the national economies of the CEMA member countries is reflected in their broad integration into the process of the international socialist division of labor. The importance of the engineering sectors is also evident from the fact that machinery and equipment account for an average of 45 percent of mutual trade. This has been confirmed by an increase in exports of a number of engineering products which find their way to the markets of the CEMA member countries (especially metalworking machinery, excavators, transportation equipment, agricultural machinery, tractors, bearings, passenger cars, etc.).

Delivery of specialized engineering output has become the fastest growing element of the mutual trade between the CEMA member countries. Specialty products have increased from a 17.7 percent share in trade turnover in engineering products at the start of the 1970's to about a 50 percent share of this trade in 1982. By the end of the 1970's specialized products represented about 40.7 percent of total mutual exports of metalworking machinery, 36 percent of electrical engineering exports, about 30 percent of exports for the chemical, paper and construction industries, about 50 percent for tractors and agricultural implements, almost 88 percent for bearings, and more than 45 percent for trucks.

Based on indicators of exports and imports of specialized production per employee, the leading countries were Bulgaria, the GDR, and Hungary. In Bulgaria, engineering output per worker amounts to 6,300 rubles, in Hungary 4,200 and 3,600 in the CSSR. The GDR, USSR and CSSR have the most sophisticated engineering complexes and dominate the CEMA market. Total engineering exports of the GDR and CSSR amount to 40 percent of the value of exports of the CEMA member countries, and almost 60 percent when the USSR is included.

In a number of member states particular attention is being devoted to the formation of an export structure within the framework of the engineering complexes. At a certain level, this approach fosters the development of products which are different in their technical sophistication, operational characteristics and quality. It may be, for instance, a group of sectors and products oriented toward export, with a special position occupied by exports designated for the markets of developed capitalist countries. This situation creates the impression that demand on the CEMA market, even though quality requirements are increasing, can still be met with products of relatively low quality.

Prospects for the Further Participation of Czechoslovakia in the Formation of an Engineering Complex of CEMA Countries

Analyses conducted at the 16th CPCZ Congress and the 8th CPCZ Central Committee Plenum allow one to form a number of conclusions about the appearance of long-term trends and factors which in the 1980's will influence the degree of specialization of the engineering complex of CEMA. These include, above all, the economic problems of the development of national economic complexes, the achieved level of economic and industrial development of the national economy and the engineering complexes, the influence of the research and development revolution on the structure of the engineering sector and the international

socialist division of labor, the peculiarities of historical development, the situation in the allocation of fuel and power, raw materials, investment, and other resources, and the condition of the international economic mechanism of integrated cooperation. Also important is the ability to resolve tasks related to the intensification of the process of international specialization and production cooperation, the impact of the development of the world economy under the conditions of expanded international economic relations of the CEMA member countries, especially as this concerns changes in the areas of fuel, raw materials and energy resources.

The process of merging and equalizing the level of economic and industrial development that is evident in the engineering complexes of the CEMA member countries is leading to an increase in the homogeneity of the production and the export structures of the CEMA countries. The conditions are being developed for an intensification of specialization, including interenterprise specialization, and increased sophistication of the spare parts, production center, and technological specialization of the engineering complex.

A worsening of the conditions for obtaining raw materials, energy and fuel, and increased prices for the production of the extractive sectors, makes it urgent to speed up research and development. The importance of sectors dependent on research and highly qualified employees, as well as those less dependent on natural resources, is increased.

The final form of the specialization of the engineering complex in the 1980-1990 period will also be influenced by the development and complexity of the mutual relations between the engineering complex and other production and non-production complexes. The most fundamental influence on the structure of engineering will clearly be that of electronics, specialized for the production of equipment for the automation of production processes, equipment for information processing and telecommunications equipment. An increase in the volume of the output of the electronics industry will have a decisive influence on the evolution of productive forces economic growth not only in engineering and in industry but also throughout the entire national economy. For groups of engineering products needed for long-range requirements and capital investments, one may assume that demand will increase for producers of high quality, new models using microprocessors or other features to increase operating efficiency.

The objectives, forms, tempo and structure of specialization of the engineering complex of the CEMA member countries depends not only on the objective trends in the development of national economic complexes and productive forces of a socialist society, but also on the forms of their implementation. The specialization of the engineering complex in the 1980-1990 period will, however, depend above all on the successful fulfillment of the Long-Range Priority Program of Cooperation. Because of the relatively high level of inertia in the existing structures in engineering, the intensification of this program will be put off to a later date.

The participation of practically every country in the international division of labor is being realized in particular through foreign trade. World production and international trade in engineering products has developed very rapidly in the time since the Second World War. While overall world exports increased by about a factor of 3 between 1955-1980, exports of engineering products increased by a factor of 4.5. As a result, engineering products as a percentage of total world exports increased from 18.5 percent in 1955 to more than 28 percent in 1980.

During this period there occurred, despite an apparently rapid growth rate, a relative weakening in the position of CSSR engineering in the international division of labor. The CSSR share of world engineering exports fell from 3 percent in 1955 to 2.1 percent in 1980; likewise, the CSSR share of total engineering goods imported by other CEMA member countries declined from 20 percent in 1956 to 14.7 percent in 1980. Within CEMA, Czechoslovakia's share of world engineering exports ranks third, behind the GDR and the USSR.

Czechoslovak engineering exports grew at about a 7 percent annual rate during the 1960-1980 period, as opposed to an 11.8 percent annual average increase worldwide in exports of machinery and equipment. Our engineering exports to developed capitalist countries grew the most rapidly (8.9 percent), at an average rate of 7 percent to CEMA countries, and at a 6.5 percent annual rate to Third World countries. The CSSR allocates about 75 percent of its engineering exports to CEMA countries, roughly 11 percent to Third World countries, and about 7 percent to the developed capitalist countries. Czechoslovak exports of engineering products represented about 14.7 percent of the imports of other CEMA member countries, about 1.5 percent of the imports of engineering products to Third World countries, and about 0.2 percent of engineering imports of developed capitalist states.

In discussions of the reasons for the weakening of the position of the CSSR as a supplier of machinery and equipment it is usually stated that Czechoslovak machinery has not been up to the standards of world demand either commercially or technically (low technical sophistication, inflexible supply, poor service), and that structurally it is oriented toward less dynamic or even stagnant sectors. A study of the structure of our engineering exports indicates that we are rather heavily committed to a number of areas where future growth projections are well below average (machinery and equipment for machine building and metallurgical plants, agricultural equipment and tractors, mining and extraction machinery, crushing, milling, and enriching machinery, etc.). In comparison with the engineering exports of a number of industrially advanced countries, our industry is more consumptive of materials and energy, has more heavy and super-heavy engineering facilities, and depends much less on research and development work. Czechoslovak engineering depends, rather, in its role in the international division of labor, on extensive rather than intensive factors, on material factors rather than modern factors such as research and development. A comparison of the structure of the three major markets (CEMA, developed capitalist states, and the Third World) leads to the conclusion that we export a slightly different product mix to each of these three markets.

In our engineering exports to CEMA member countries and the Third World the predominant items are those of a capital investment nature, moderately to heavily productive-factor intensive and, from the viewpoint of the Third World, expensive from a credit standpoint. This market is relatively weak in sub-assembly production and consumer durables. Our exports to the developed capitalist countries are primarily engineering products for personal consumption. The structure of exports to this market is for the most part moderately productive-factor intensive.

Czechoslovak engineering exports to industrially developed capitalist countries, the CEMA member countries, and the Third World depend to differing degrees on research and development. The differences may be regarded as natural ones stemming from the varying position of our economy in the international division of labor, and from the differing relationship of our production complex with other technically and economically more or less advanced countries. Our objective should be to increase the percentage of highly technically sophisticated items with high value added, products that are research intensive and suitable for export to all countries.

The most important partners of the CSSR in the international division of labor are the CEMA countries and the Soviet Union in particular. Just as on a worldwide scale, within the context of CEMA engineering products as a percentage of total trade have increased from 27.2 percent of the total in 1948 to 59.1 percent of the total in 1971.

The CEMA member countries have accounted for the following percentages of Czechoslovak engineering exports:

Year	1948	1955	1965	1970	1975	1980
Percentage	53.2	82.7	84.5	75.4	80.0	78.0

The recent moderate decline may be explained in part by the fact that during the period in question important economic relationships developed to a point where the possibilities for a mutually beneficial exchange of goods became more or less exhausted. The situation requires a new stimulus, contributed above all by socialist economic integration, and in engineering primarily by specialization and cooperation. The engineering sectors of the CEMA member countries have not been capable of assuring the requirements of engineering production for these countries, at the current stage of development, in the requisite product mix or rapidly enough. For this reason there has been an increase in imports from the industrially advanced capitalist countries. In the 1965-1980 period imports of machinery in the mutual trade of the CEMA member countries grew at an average annual rate of 8.2 percent, while the average annual rate of growth of imports of machinery from industrially advanced capitalist countries was 11.1 percent.

Despite the foregoing figures, however, a majority of the requirements for engineering products for the CEMA countries are provided through mutual trade. Imports of engineering products by CEMA countries in 1980 came 73 percent from mutual trade and 25.2 percent from trade with capitalist countries.

The participation of Czechoslovak engineering in the international division of labor, through the medium of foreign trade, fulfills functions within the national economy which have evolved historically, primarily under the influence of the principal events of international political-economic development. These functions are evident primarily in the scope and the structure of our engineering products and our imports from the major world markets.

The majority of Czechoslovak engineering exports, as has already been mentioned, is allocated to the CEMA countries. The historical development of the CEMA countries, their initial level of economic development, and their national economic and industrial structures have gradually led to a situation in which our engineering industry is supplying mainly capital equipment for the modernization of industry and the industrialization of these countries. The revenues thus obtained have been used for the most part for the procurement of raw materials, fuel, semifinished goods, agricultural raw materials and, to a lesser extent, finished products, the latter primarily on the Soviet market.

With the gradual equalization of the level of economic and industrial development of the CEMA member countries, the continuation of this trend into the future seems unrealistic. Most of the CEMA countries, including the CSSR, are continually increasing their demand for raw materials and fuel imports from the USSR, compensated for by their engineering exports. Likewise, the USSR, in accordance with the growth of its own engineering industry, is increasing exports of its own engineering products to the markets of the other CEMA countries. At the same time it is justifiably requesting some participation in the development and exploitation of its raw materials and fuel resources and branches.

These problems may be resolved through the discovery of supplementary sources of raw materials primarily in Third World countries, the intensification of the overall economic process, and the deeper specialization and simultaneous reduced materials-intensiveness of the engineering products of the CEMA countries. At the same time it is necessary to proceed with the development of the production of engineering consumer goods as a source of revenue for the CEMA countries in their trade with the industrially developed capitalist countries, and with an overall increase in the effectiveness of international specialization and production cooperation. The industrially developed capitalist countries represent a broad if very demanding market for a wide range of engineering products. The major area for our exports to this group of countries is to the countries of Western Europe. The specification and structure of Czechoslovak engineering exports show that we approach them as a relatively weaker trading partner. Czechoslovak engineering exports should develop, then, above all in those highly productive fields which hold the promise for further rapid increases in sales on demanding markets, and with which we can successfully compete at a world level.

The differing functions of Czechoslovak engineering exports on the major world markets points as well to dual objectives for the Czechoslovak engineering sector in foreign trade and in economic integration.

The first objective may be characterized as the obtaining of means of payment for the procurement of raw materials, energy, semifinished goods, agricultural raw materials and foodstuffs for the different sectors of the national economy which are, in terms of raw material and energy resources given the natural and economic conditions of the CSSR, continually prone to shortages, and state of the art production equipment for the national economy in areas where so far the CEMA market is not capable of satisfying either its own or Czechoslovak requirements.

The second objective consists of the exchange of engineering products or of the results of research and development work, of international production cooperation within the context of specialized production programs, and international research and development cooperation. Its purpose lies in assuring a growing mix of requirements through deliveries of technically highly sophisticated machinery and equipment, the development of the conditions for an acceleration of technical progress in the national economy, and the assurance of the conditions for the effectiveness of domestic engineering production through specialization and the concentration of production on an international scale, with all of the known consequences of this.

Analyses indicate that the actual opportunity for international specialization and production cooperation in engineering, despite significant volumes of product for export, is quite limited and is determined above all by the volume of engineering products which we can import from the CEMA countries on an ongoing basis; the latter, though, is limited by the necessity for importing above all raw materials and food. The relevant calculations indicate that the useable opportunity for international specialization and production cooperation in engineering production amounted to about 6 percent of total Czechoslovak engineering output in 1970 and about 9 percent in 1980.

The gradual implementation of the Comprehensive Program for the Further Intensification of Cooperation and the Development of Socialist Economic Integration with the CEMA Member Countries is a dynamic factor in the development of the international socialist division of labor. The overcoming of additional barriers of a more general nature depends equally on the working out of convertibility or exchangeability of a collective currency, the introduction of economically justified and mutually agreed-upon exchange rates or coefficients, the improvement and partial merging of price formation methodologies, the planned utilization of the influence of value categories and economic mechanisms.

Analyses of the peculiarities of the foreign trade of Czechoslovak engineering products and the preconditions for increasing the effectiveness of its integration into the international, and especially the socialist division of labor, which concerns above all the development of specialization and cooperation in the mutual engineering foreign trade of the CEMA member countries, yield the following conclusions:

- 1) The scope of engineering production integrated into the process of international specialization and cooperation is projected at 6-9 percent of the total of such trade in this 5-year plan, to grow to 11-13 percent of this total in the

Eighth 5-Year Plan. Further and more intensive integration of our production into this process depends above all on the capabilities for implementing certain changes in the structure of the engineering sector. The managerial organs in the engineering sector have an indispensable role to play here, primarily through their influence on increases in exports and imports of engineering products by means of international contracts concerning specialization and production cooperation.

2) Czechoslovak export of machinery and equipment for imports of fuel, raw materials and agricultural products is possible mainly in relation to countries with relatively less developed industry. In the future we must count on every country trying to balance foreign trade deficits with engineering products. This trend is leading to the development of international specialization and cooperation in our engineering sector; the preconditions for implementing it must be created by reducing the deficits in the other items of the trade balance on the basis of an intensification of agricultural production, chemicalization, the development of nontraditional energy resources, etc., that is, outside of engineering.

The implementation of the Comprehensive Program of International Socialist Economic Integration of the CEMA Member Countries is making a major contribution to the gradual elimination of these obstacles. In accordance with long-term trends and with the current position of the CSSR in the international socialist division of labor it is essential to focus Czechoslovak engineering production on exports and on products with a high level of technical sophistication. This means emphasizing universally marketable items, with relatively less emphasis on factors of production, and concentrating on products with the prospect of ongoing annual increases in exports to both CEMA countries and developed capitalist states of at least 10 percent, or on high-volume items in international trade which also have high annual growth rates. At the same time it will be necessary to concentrate efforts on the development of certain finished engineering products and small run production techniques, in order to cover primarily a requirement of the CEMA market which has so far been covered with imports from the developed capitalist countries, while at the same time supporting sectors producing finished industrial goods for which we have enough domestic modern technology. These are typically high value added products, making it realistic for us to expect to be able to keep pace with world research, development, and production.

In the context of negotiations on the intensification of our participation in the international socialist division of labor we must strive to obtain a production specialization in items that are either mass produced or produced in batch lots. The product mix should be universally marketable and at the same time demonstrate appropriate sales growth both on the CEMA market and on the markets of the developed capitalist states.

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CSO: 2400/325

CURRENT PROBLEMS IN AGRICULTURE EXAMINED

Fertilizing Corn Crop

Sofia KOOPERATIVNO SELO in Bulgarian 18 Apr 84 pp 1, 2

[Article by a team of scientists under the guidance of Dr Dimitur Stoyanov, senior scientist: "Specifically According to the Soil and the Planned Yield"]

[Text] In connection with fulfilling the task of obtaining 1,000 kg of shelled corn per decare from 2 million decares, a team from the Nikola Pushkarov Institute has worked out recommended levels for fertilizing corn grown under irrigation. These vary depending on the soil conditions and the planned yields from a specific field.

1. Under this year's conditions, with the entire amount of nitrogen to be applied during preparations for sowing, the danger of forming dangerously high concentrations of nitrogen in the surface layer of soil exists. This may cause damage to the sprouts of the young plants. It has been established that the requirements of the corn plants for nitrogen are minimal until the phase of the fifth to sixth leaf. As the plant develops, its absorption becomes greater. The maximum extent of this process coincides with the earliest stage of filling out of the cob (silking), the highest being from the stage of the 8th to 10th leaf until filling out of the cob begins. The greatest effect from introducing nitrogen fertilizers is to be expected before this period.

These studies show that the nitrogen requirement must be applied in two applications. This is why no more than two-thirds of the recommended amount of nitrogen should be applied during preparations for sowing. For soils of average or poor mechanical condition, one can apply during preparations for sowing approximately 14-16 kg of nitrogen (ammonium nitrate) [per decare] without causing harm to the young plants.

With regard to the form of the nitrogen source, one must bear in mind the following:

Corn easily absorbs both basic forms of nitrogen--ammonium and nitrate. A predominance of ammonium in nitrogen fertilization of corn is not desirable,

since it can negatively affect the activity of certain macro- and micro-elements. Ammonium nitrate best meets the requirements of corn in that it contains both forms of nitrogen and is a universal fertilizer for all soils. One should bear in mind that when more than 10 kg/decare of ammonium nitrate is applied to acid soils (with a pH of less than 4.5) the soil may become more acidic, increasing the toxic levels of concentrations of manganese and even of aluminum. This physiological disturbance can be prevented in part by applying molybdenum.

One must be more careful when fertilizing with carbamide. When the amide form of nitrogen reacts with the soil under the action of the soil micro-organisms it is first converted into the ammonium and then the nitrate form. The rate of this process depends on the acidity, the temperature, and the moisture content of the soil. In acidic soils the rates of ammonification and nitrogen are reduced. This explains why carbamide use is not recommended for soils with a pH of less than 4.5, while for weakly acidic soils (pH 4.5-6.5) fertilization should be completed 4 to 6 days before sowing in order to avoid harming the young plants by excessive concentrations of ammonium. The use of carbamide is not recommended for alkaline soils.

2. Phosphorus has a specific effect on corn expressed as the sensitivity of this crop to the formation of high levels [of this element] in the soil, which creates an imbalance in the availability of certain microelements such as zinc, iron, boron, and copper.

The phosphorus compounds, it should be noted, are retained in the soil absorption complex almost in their entirety in the spot where they are applied. These properties mean that phosphate levels are formed for an extended period of time, since the plants utilize not only the phosphorus recently introduced, but also that remaining. The major part of phosphorus fertilizer should be added during late autumn plowing so that it will be available to the active root system.

But what is to be done if for some reason the phosphorus fertilizer has not been applied in the autumn? This should only occur exceptionally, and should be remedied in a differentiated manner. Why? Because phosphorus applied during sowing preparations remains on the surface layer (10-12 cm deep), where it is used by the root system for a relatively short time. The danger of shallow application of phosphorus is still greater in view of this year's cold and late spring, with wet soils. This is why soils containing a residue of phosphorus from a preceding crop of wheat need not be given phosphorus this spring. The answer is similar for soils which, according to the tables, have average or high reserves of soluble phosphorus. The only exception is the case where the reserve is low and the preceding crop was not given high levels of phosphorus fertilizer. In such cases the rate of application may be 6-8 kg of phosphorus (active compound) per decare. This is all due to the circumstance that corn does not tolerate high concentrations of phosphorus.

3. The effect of potassium fertilization depends on many factors.

Potassium rapidly interacts with the soil and remains primarily in the soil layer to which it has been applied. It is thus essential that it reach the stratum where most of the root system of the corn plant will develop. This explains why the optimal method for applying potassium fertilizers is along with the deep autumn plowing, especially for a crop such as corn.

Recommended levels for potassium fertilizer range from 12 to 24 kg/decare (active compound) depending on soil differences, the reserves of potassium available to the plants, the levels of nitrogen and phosphorus, and other factors. This recommendation is for autumn application and mixing with the plowed soil layer. Attempts are now being made, however, to apply potassium fertilizers during the spring. A specific approach is essential: those soils must be fertilized which have an insufficient reserve of available potassium (low or average amounts according to the table), as well as carbonaceous chernozem soils and those with an inadequate water supply, in dosages no greater than 12 kg/decare (active substance).

4. Molybdenum fertilizers are required for the efficient absorption and complete utilization of high levels of nitrogen fertilizers. These are applied to acid soils in the amount of 3-6 grams/decare. Molybdenum fertilization of corn should be done by treating the seeds. If this is not done, the crops should be sprayed with the recommended dose during the stage of the third to fourth leaf, using a ground-level method. One should be acquainted with the fact that continuing cold weather during the early phases of development of the plants increases the need for molybdenum.

5. Zinc fertilizer is required for stable high yields of corn. This must be applied to soils which are neutral or alkaline or which have a high concentration of available zinc. In cases of heavy phosphorus fertilization, or sometimes even pre-sowing phosphorus fertilization, zinc should be applied preventively even to soils which are slightly acid. There is, moreover, a serious danger of the development of zinc chlorosis when high levels of phosphorus fertilizers are applied to corn. Phosphorus suppresses the absorption of zinc by corn. Low temperatures and poor aeration of the soil enhance the depressant effect of phosphorus on the absorption of zinc by the plants. For this reason, the possibility of zinc chlorosis developing is higher at the beginning of the growing season, when the soils are cold and wet and root growth is slow. Recently applied phosphorus, in whatever quantity, in addition affects zinc retention by the plants, so that such areas should be watched particularly carefully.

The recommended levels of zinc fertilization depend on soil groups and the level of reserves in the soil. Zinc fertilization of corn is carried out by spraying during the early stages of development of the crop (third to sixth leaf) in amounts of from 20 to 100 grams of zinc per decare. Zinc sulfate can be applied to the soil at 10 times these levels, but it should be applied and mixed with the soil uniformly, which is difficult to accomplish in practice.

Underutilization of Crop Potentials

Sofia KOOPERATIVNO SELO in Bulgarian 18 Apr 84 p 2

[Article by Boris Litov: "Are We Making Use of the Power of the Bulgarian Meadow?"]

[Text] Every spring represents a severe test of the ability and skill of our agricultural workers to obtain a greater yield of crops, of higher quality, and more cheaply. This spring the long winter has given the farmers even greater problems, among which is the particularly serious one of sowing the spring crops on time and in a superior manner, because even during the period of the technological revolution the ancient proverb, "As you sow, so shall you reap," is still valid.

Over the past 10-15 years our agriculture has made great progress. The yields of many crops have been increased significantly, in some cases doubling or even tripling. But an objective evaluation gives us reason to consider that what has been accomplished does not yet correspond to the material and technological basis of our agriculture. One of the most serious reasons for this condition is the incomplete utilization of the biological potential of the different sorts and hybrid types of crops and, in the final analysis, of plants as the biological bearers of fertility. It happens that despite improvements in methods and technologies, only 50 percent of the biological possibilities of the sunflower are utilized, for example, or 58 percent for the sugar beet, 40 percent for tomatoes, and for corn, one of our basic cereal crops, approximately 50 percent, while in some countries the percentage is 70-80 or even 90. There is no need to comment on this. This circumstance shows how great are our unutilized reserves for increasing production. It also shows how much production our national agriculture loses because of the inability of many managers, specialists, and workers to take from the plants what they are capable of giving.

Why is the full biological potential [of the plants] not used? It is very difficult to give a complete answer to this question. But this does not prevent us from recognizing the fundamental causes and doing what must be done to eliminate them.

We must in all justice admit that there are certain objective causes. But we would be committing a serious error if we were to attempt to conceal the many failings which are allowed in the complexes and work brigades during the production process. Some of this cannot in any way be corrected. This concerns primarily negligence which results in not assuring the necessary number of plants when sowing a unit of area in accordance with the biological properties of the crop, sort, and hybrid. Observations of many years have shown that we plant 25 to 30 percent less than the optimal number of corn plants, 40 percent too few beets, 30 too few sunflower plants, etc.

Why is the optimal number of plants not assured? This is also a complicated question. We can hardly use as justification the fact that for many crops seeds which have unsatisfactory agricultural qualities are still sown. In many areas the tractor operators are still not able to sow at the most favorable agrotechnological times, while in other areas they sometimes arbitrarily set the quantities of seed to be sown without taking into consideration the biological characteristics of the sorts and hybrids or the type and preparation of the soil. It happens that the producers are not always clear about how many plants should be sown in accordance with the definite biological potential of a sort. The drills are not always properly adjusted for exact and high-quality sowing of the seed. In a significant number of cases the crops become greatly thinned out, because the plants are destroyed from tilling during the vegetative period or as a result of ineffective protection of the plants. Thus, for example, about 5 percent of corn plants are killed by wire worms or grey weevils.

Taken as a whole, these and other disruptions in technological discipline during the sowing and cultivation of crops give an idea of the basic causes for the incomplete realization of the biological potential of the different sorts and hybrids. In addition, the most unpretentious calculations show that because the necessary number of plants is not assured, we lose the harvest from about 3 million decares of fertile land. This sounds paradoxical, especially at a time when the government is investing large amounts in underproductive lands.

Science and the leaders in production have proved that contemporary agricultural technology has sufficient means at its disposal to realize the highest degree of the biological potential of our plants. This has been proved, despite the exceptionally unfavorable 1983 [weather conditions], by work brigades in the villages of Roza, Yambol okrug; Kamen, Silven okrug; Turstenik, Pleven okrug; Sekulovo, Siliistra okrug; and Nikolovo, Ruse okrug. There are many many complexes and work brigades which have achieved growth comparable to that anywhere in the world. But there are still quite a few which cannot break out of their rut and set forward along the broad highway to scientific and technological progress. The results are well known. Their yields are from 1.5 to 2 times lower than the leaders, under similar conditions.

The sowers have already begun the peacetime battle. Its outcome is in the hands of the tractor operators, the collectives, and the work brigades. But not everything should be left up to them. The managers and specialists of the agroindustrial complex and the OAPS [Okrug Agroindustrial Union], the scientists and the institutes, must go out into the fields. The application of the greatest achievements of science, of the experience of our leaders and of foreign leaders regarding the most efficient use of the factors of production in order to obtain high yields from every decare and from every crop should be incorporated into the marrow of socialist competition, into the marrow of the activity of the work collectives in order to turn the motto of the National Party Conference, "High quality everywhere and in everything!" into reality.

Rot in Seed Potatoes

Sofia KOOPERATIVNO SELO in Bulgarian 18 Apr 84 p 2

[Article by Kliment Banichkov, Okrug Committee Inspector for the State and People's Control in Plovdiv: "A Tax on Negligence"]

[Text] In the Plovdiv okrug about 25,000 decares of early potatoes are planted every year. Half of the potatoes required for our own country's use and 40 percent of the export crop are produced here. This explains the great importance of this crop to the economics of the region and is satisfying the needs of the population. But for years on end the producers have been encountering major difficulties in providing for high-quality seed material, and this year the problem has become extreme.

The seed material for the region is provided primarily by seed farms of the Smolyan okrug, where conditions are particularly favorable for its production. But underestimating the seriousness of the struggle against potato rot during the growing season when the tubers are being cultivated has resulted in large-scale rotting in the Plovdiv agroindustrial complex. The early sorts Vindika and Saskiya have proved particularly susceptible.

The history of this disease in our region is not a very old one. In 1972 tubers sent from the villages of Ravnogor and Pazardzhik were determined to be infected with rot, caused by the fungal parasite *Foma exiqua*, which attacks only late potatoes in the mountains. Early crops in the fields are not attacked. The fungus continues to live in the soil and to infect the tubers only through cuts resulting when the potatoes are lifted, sorted, and transported. The causes for such rotting have been investigated by Dimitur Bakharev, senior scientist of the Maritsa IZK, who has also found ways to combat this disease. Despite this, every year rot damages our potato crop, unnoticed by the specialists and directors of the agroindustrial complexes.

During the inspections organized by the District Seed Inspection Commission in Plovdiv, attended by representatives of the Seed Varieties and Seed Material enterprise and the seed-producing agroindustrial complexes of the Smolyan okrug, from 20 to 55 percent of the tubers were found to be afflicted. The records of these proceedings show that potatoes of the same sorts but of different origins showed varying degrees of rot. In the storehouses of the village Rogosh of the Plovdiv agroindustrial complex, the Vindika sort from Chepelare was 15 percent afflicted, while that from Breze was 44 percent afflicted. In all, 34 percent of the inspected potatoes produced by the Plovdiv agroindustrial complex contained rot.

A second inspection, conducted on 3 March in the storehouses of the villages Skutare, Rogosh, and Manole, showed that the percent of rotting potatoes had increased.

It is our categorical opinion that the different settlements of the Smolyan okrug are not following the rule of lifting potatoes only from dry soil and that the potatoes are not being inspected while they are sorted in order to remove visibly damaged tubers. In addition, the potatoes are being lifted at temperatures below 12 degrees Celsius and a wound peridermis is not being formed over the damaged tubers to protect them from the entrance of parasitic fungi and bacteria. Rot remains hidden until early January. It is beyond doubt that if the producers of the seed had organized treatment of the tubers with fundasol or tekto, the disease would have been eliminated.

Approximately 34 percent of a total of 2,000 tons of seed potatoes inspected in the region were found to contain rot. The other, uninspected potatoes under cultivation in our state and private farms also contain rot, so that losses are much higher.

In our opinion the responsible agencies and seed farms of the Smolyan okrug should be required to arrange for continuous monitoring and to create the necessary organization for dipping the potatoes into a solution of fundasol or tekto (especially in the case of cold weather and wet soils at the time of lifting). Otherwise this harmless little fungus will collect an ever rising tax on negligence and carelessness.

9832
CSO: 2200/119

FEDERAL ENGINEERING, ELECTRONICS MINISTERS VIEW ECONOMY

Bratislava PRAVDA in Slovak 24 Apr 84 p 4

[Article by Comrade Pavol Bahyl, minister of general engineering of the CSSR, and Comrade Milan Kubat, minister of the electronics industry of the CSSR]

[Text] [Bahyl] During the first 3 years of the Seventh 5-Year Plan the general engineering sector has fulfilled its main plan targets. We have, nevertheless, weak points, which include the low technical sophistication and quality of a number of our products and difficulties in selling these items in demanding markets. This is caused by delayed product innovations and delays in beginning the production of new products, a lack of coordination between production and marketing, and high production costs in comparison with progressive producers.

Our efforts this year and our plan formulation for upcoming years is focused above all on improving these weak points. The beginning of 1984 has not been too bad in this regard. To fulfill the objectives for this year, however, we must improve our export performance to nonsocialist countries by almost Kcs 1 billion, an objective that we are pursuing aggressively along with foreign trade. We have augmented the original 1984 plan in view of the overfulfillment of the plan for 1983. We can therefore maintain the established pace of production, and build on gains in resource utilization and productivity that were achieved last year. During the current year and in 1985 we want better to assure the fulfillment of the targets of the Seventh 5-Year Plan and the resolutions of the 16th CPCZ Congress.

Even though some progress has been made recently in providing comprehensive mechanization for our agricultural sector, with improvements in the quantity and quality of delivered machinery and spare parts and the plan for the Seventh 5-Year Plan having been overfulfilled by more than Kcs 2 billion, our performance has not fully corresponded to the needs of agriculture. Output has not met user requirements in terms of quality, technical sophistication, operating characteristics, energy intensiveness, efficiency, and in many instances product mix and price. Our engineering sector has the capacity to resolve these problems, given effective cooperation and specialization with CEMA member countries and the judicious utilization of foreign licenses.

Plow production will increase to 3,000 units of all necessary types by the end of the Seventh 5-Year Plan. The production of four types of grain planting

machines, i.e., broadcasting, contact, disk and belt machines, will amount to 1,700-1,800 this year, and current production problems will be resolved prior to the end of the Seventh 5-Year Plan. Beginning in 1986 we will gradually begin the production of planting machines for sugar beets, corn, legumes and vegetables, which we have so far assured through imports. For sugar beets and fodder beets we will be evaluating in 1984 a model of a picking machine with favorable licensing terms, and by mid-1985 we will build a facility for the mass production of 250-300 units. Over the next 2 or 3 years we will rebuild all existing harvesting machines.

At Prostejob Agrostroj we have begun the production of a new harvester for fodder crops, the SPS 35, which has six adapters but which has not won a very good name for itself because of excessive down time. By the end of April, however, all of the machines will have been repaired and new ones will be in production, the quality of which meets the standards of Category 1. In hilly areas the Horal system from Agrozet in Brno will be operating and on grades in excess of 20 percent a machine for fodder harvesting from Martin will be used. We will build about 200 of them this year, with mass production slated to begin next year.

The shortage of gatherers and rakes will be rectified with the production of 1,700 units this year and 2,000 next year. We want to improve potato harvesting by importing a state of the art machine from the GDR, with the first deliveries due this year. We are testing this year an appropriate planter for presprouted potatoes for potential licensed production. During the current half year, Brno-Lisne will introduce a fifth generation of tractors with reduced fuel consumption, higher performance hydraulics, improved ergonomics and so-called B-modernization from the Martin Agricultural College. These tractors will have 120-160 horsepower.

Next year production will begin in Brno of the innovative Z 5011 tractor, which is sorely needed by our agricultural sector. We are preparing a new generation of tractors from Martin and Brno which in all respects will correspond to worldwide state of the art. We expect to increase the production of smaller implements to 25,000 units during this 5-year plan and to 35,000 units annually during the Eighth 5-Year Plan. This includes single-axle implements with 10 horsepower. We intend to produce 3,000 of the latter annually. With the opening of a new plant in Roznava and the production of motors at Strakonice under a joint venture with the Soviet Union, we will increase the production of small tractors, with 14-18 horsepower, to 5,000 units per year.

In conjunction with the Ministry of Construction we are developing a system of machines for builders. We must quickly figure out, in conjunction with the heavy engineering sector, how to cover requirements for machinery of which there have been shortages to date, namely backhoes with over 1 cubic meter capacity and higher capacity automotive cranes from the Slany plant of Ceskomoravská-Kolben-Danek. For this purpose the general engineering sector is supplying the innovative Tatra 815 chassis. Design work still has to be completed on the lifting vehicle, but we have recently succeeded in

negotiating increased deliveries from Bulgaria of these units for the current and future years, as well as of cement mixers, etc. The issue of heavy equipment has not as yet been resolved. Bulldozers are of particular concern, but we have decided here to go the route of international cooperation. We have formulated a design for the production and assurance of equipment for speeding up final assembly and skilled trades work.

The automobile industry has an indispensable role to play. It employs 150,000 people and is heavily involved in the production of tires, glass, technical rubber, textiles, wood, and to a significant extent with the chemical industry. We have mastered the mass production of the basic versions of the Tatra 815 truck during the production of this vehicle at the Tatra Koprivnice, Banovce, Cadce and at other factories. We now face the task of increasing efficiency, reducing the work involved in production and mastering further modifications.

Regarding Skoda LIAZ, the second largest producer of automotive vehicles, future success is tied to a program of innovation aimed mainly at exports. It includes the modernization of the M-1 motor, and the gradual introduction of the M-2 motor and of the M-3 motor during the Eighth and Ninth 5-Year Plans. These are intended to form the basis for qualitatively new types of trucks, including those fully suited for long-distance hauling and for the required modifications on vehicles and equipment. The primary role of Skoda LIAZ is to achieve a long life cycle for its products, improved fuel consumption and overall performance characteristics.

[Kubat] In the electronics industry we have from the beginning been focusing our efforts in a few critical areas. First priority has been the development of a modern components base for electronics, concentrating on the development of microelectronics components, and assured in cooperation with the Soviet Union, the GDR and other CEMA countries. Without components we would not be able to develop new avenues in industrial and consumer electronics products because we would always be partners in international cooperation. Developing this components base also allows us to fulfill one of the tasks of the 16th Congress of our party.

Second, we are developing production intensively. We have set up three state of the art microelectronics facilities at Piestany, Roznov and in Prague. In addition, we have introduced a large number of state of the art, licensed production processes at enterprises in both the Czech and the Slovak socialist republics.

Third, we are well aware of our contractual responsibilities to the national economy. We are subcontractors for engineering, metallurgy, power generation and mining, and we are primary contractors for communications, transportation, health care and other sectors, with special concentrations in communications and computer technologies, in automation, measurement and regulation, and in heavy current electrical equipment. We are trying our very best to perform our assigned tasks both as subcontractors and prime contractors.

Fourth, we are at a disadvantage, in that Czechoslovak electronics are expensive by world standards. For this reason we are implementing a third

substantial price reduction, which applies mostly to components but to final products as well. We will continue with this strategy.

Finally, an ongoing object of our managerial attention is the quality and reliability of our products. On the whole, losses from rejects and returns in our sector in 1981-83 declined to 64 percent of 1980 levels, but we must forge ahead. For instance, costs for the warranty repair of televisions declined in 1983 to 47 percent of the level in 1980. Nevertheless, they are still too high, amounting to Kcs 97 million for an industry with Kcs 2 billion annually in television production. We must step up our struggle for the quality, reliability and long useful life of our products.

We are devoting considerable attention to consumer electronics. We are increasing the production of table model color televisions with 67-centimeter diagonal screens. This is the largest picture tube being built in the world. Towards the end of this year production will begin on portable color televisions, and production will begin in 1985 on smaller table model color televisions. All of this will be carried out under international cooperation with the Soviet Union and the GDR. Under license, we are producing our first line of videorecorders, we are coming out with personal computers and with other necessary electronic products. We have begun the production of new incandescent and fluorescent lighting for apartments and interiors.

In conjunction with the fulfillment of the main objectives in economic and social development for the 1981-1985 period, as outlined by the 16th Congress, we are resolving a number of complex problems. The fundamental question is of exports to socialist and above all nonsocialist markets. Our exports in 1983 to socialist countries were 136 percent of 1980 levels and to nonsocialist countries almost 120 percent. We are smoothly fulfilling our planned targets for exports to socialist countries. Concerning exports to nonsocialist countries, however, we have been forced to reevaluate our previous policies radically and set ourselves some new targets. We are restricting the export of the normal types of electric motors and power cables, and are orienting ourselves toward more complex and sophisticated strong current products, turnkey units, and the export of electronics. To do this, however, we must overcome the affects of the world crisis and the flood of electronics on capitalist markets. Despite these obstacles, in 1983 we for the first time fulfilled plan targets for exports to nonsocialist countries. Differences still exist, however, in the fulfillment levels of individual economic production units. The report of the Central Committee Presidium rightly pointed to the failure to fulfill export targets to nonsocialist countries on the part of the Chiran VHJ. This concern must further increase its exporting efforts to nonsocialist countries. We are actively developing our commercial and technological activities with the Soviet Union. At the end of May we are going to acquaint our Soviet partners with a sampling of our electronics technology at a joint exhibition at the new facilities of the Czechoslovak commercial and technical center at Moscow-Chertanov.

The utilization of research and development and international cooperation is a serious problem. We are aware that electronics must be the stimulator of the

technical progress of our national economy. We are making use of the results of the research of our academies of science and our colleges. We have signed useful cooperation agreements with the academies and with the Czech Institute of Technology. We are substantially shortening development schedules by introducing short-term innovation assignments and by monitoring the deadlines of the research and development plan.

In work with personnel engaged in technical preparations for production we are strengthening the positions and the motivation of the senior constructors, designers and technologists. We are proceeding in a differentiated manner and are offering progressive compensation possibilities to those who record continually superior performance. It will be necessary, however, to implement this policy more firmly in our enterprises. We are cooperating closely with the Soviet Union and other socialist states in the areas of research and development, production, and commerce, proceeding on the basis of 37 multilateral and 51 bilateral agreements. We are not contenting ourselves, however, with the number of signed agreements. We are looking for ways to cooperate more flexibly in the joint resolution of objectives and on joint worksites and enterprises. These new forms are being implemented currently, for instance, in projects for a unified system of computer and communications technology, microelectronic circuits, color televisions and the mass production of electric motors.

The electronicization of the national economy is a complicated task. We are aware of our indispensable role in the electronicization of the entire national economy, and for this to take place we must deliver unified components, terminals, units, subsystems and systems, machinery and equipment. At the same time we must meet specifications as to the sophistication, quality, reliability, life span and average price. This, clearly, is a large number of specifications and meeting them is, just as clearly, not an easy task.

We are undertaking it with full responsibility, however. In conjunction with the Czechoslovak Scientific and technical Society and other organizations we are undertaking the training of 40,000 professionals in the applications of electronics. We have published catalogs of components, scanners, terminals, individual systems, and other literature. By the end of 1984 our microelectronics consultation centers will be functioning in Prague, Brno, Ostrava, Bratislava and Kosice, with other consultation centers to be set up in kraj cities. These centers will assist designers in applying electronics to all sectors. We are following with great interest and understanding the ways in which other sectors of the national economy go about setting up their own capacities for the application of electronics. We see electronics as a critical resource for increasing engineering sector exports and finding themselves a place in the world market.

The growth of electronics industry production, labor productivity and the development of engineering industry facilities for electronics technology are all important issues. The developmental plan for our sector approved by the government and the Central Committee Presidium projects that the volume of production of goods by this sector in 1990 will be about double the output

of 1983. The critical area for us currently is to increase labor productivity. We project that labor productivity as reflected in adjusted value added in 1990 will be about 190 percent of the labor productivity achieved in 1983. At the same time, we are far from satisfied with the current level of productivity or of production costs. We have therefore formulated a bold modernization program based on a sharp increase in the domestic production of single purpose machinery and equipment, output that will reach eight times the current level by 1990. Single purpose machinery and equipment for the electronics industry have, after all, become the object of the strictest embargoes of the United States, and can be a useful export to all territories.

To implement this program for the development of single purpose machinery and equipment we must substantially expand our engineering capacity by about 10,000-12,000 workers by 1990. This target is being worked on at the present time, both by the construction of new machine-building facilities for the electronics industry and by transfers from the general engineering sectors and cooperation with them.

To move ahead more rapidly it will be necessary to resolve several investment and delivery problems. Above all, it is essential to provide the investment assurance of electronics industry objectives in the Eighth 5-Year Plan. This will require the allocation of 9-10 percent of the total investment in industry, an investment that will be repaid to the national economy, with a healthy profit, in a very short time. In addition, we have a shortage of specialty materials from the chemical industry, and to a certain extent from metallurgy as well. In these areas we are awaiting greater assistance from the industrial ministries and planning organs. We are also aware, however, of our shortcomings in the construction of nuclear power plants, mines, and in capital investment generally.

9276
CSO: 2400/323

GERLE WARNS QUALITY, INNOVATION MUST GO HAND IN HAND

Prague HOSPODARSKE NOVINY in Czech 27 Apr 84 pp 1, 7

[Article by Eng Ladislav Gerle, ScC, deputy premier of the CSSR: "Face To Face With Economy of Quality"]

[Text] Our country's economy is broadly based on the processing of raw materials and materials and on the conversion of sources of energy. Therefore, our high standard of living depends on how we can earn it by the rational exploitation of those resources, some of which we are producing in limited quantities from our own supplies and others of which we import with difficulty and at great cost.

Recently the CPCZ Central Committee discussed the current situation and the further development of our engineering, electrical engineering and metallurgical industries as sectors of key importance for the functioning of our national economy, because the machine engineering industry furnishes other branches with production means and provides automation which frees them from errors caused by the human factor. The efficiency of our national economy depends mainly on the way our goods meet world standards not only in terms of their technical level, consumption of energy, reliability and service life but also by the economic parameters of their production.

Quality Is an Uptapped Asset

Such properties are determined by the initiative and prompt introduction of the latest R&D achievements in practice, faultless design of workshops, maintenance of mandatory technology, people's honest and conscientious attitude to work--discipline and self-control. It was no coincidence that the Eighth Plenum of the CPCZ Central Committee in June 1983 dealt with the "expeditious introduction of R&D achievements into practice." Resourcefulness pays. Comprehensive quality entails economic advantages with which we must balance many problems caused by nature and by developments in the capitalist world. Nevertheless, the intrinsic factor--quality of labor--is entirely in our hands.

Thus, the quest for quality is more than an order by decree. Common sense tells us that--even if there were no problems in foreign markets--there is no purpose in working unless it is for the best accomplishment possible, regardless of whether the goods are designated for domestic or foreign use.

The Eighth Plenum repeatedly stated that we have all that we need to advance more rapidly in this important area in the interest of our people's happy life.

We must realize that an inferior product--and consequently the waste of raw materials, materials and energy, poorly used capital assets, wasted labor force--leads to high costs in our country and to low sales prices in foreign trade. As a rule, this is a result of insufficiently prepared programs and plans for technical development and of their implementation, because the importance of international cooperation is underestimated, information on the development in that particular sector is inadequate, technical preparation for production is inferior, technical discipline is lacking, work is done in haste, input control of materials and subdeliveries is unsatisfactory, interoperational and output control inconsistent; there are shortcomings in storing, packaging, mailing and transportation; services are inadequate and additional deficiencies exist in the management of technical, production and marketing operations. If I say that the quality of the product depends on the whole process of production and its systematic and comprehensive management, then I also say that all units of a manufacturing organization are responsible for its standards and that [the quality of the product] is the criterion of the quality of the management, its leadership and, above all, its director.

In this respect our party and state authorities adopted measures in particular to build up and fully enforce a comprehensive system of quality control, higher responsibility of the managers for efficient control of quality and for taking action against losses caused by inferior production, and more efficient technical control in every stage of the process of production. Mandatory rating of the quality of products already in the preproduction stages was introduced in 1983. It stipulated the required indicators of the state plan, products of high technical and economic standards, and losses caused by inferior production. The CSSR Government adopted a decision for improving the system of quality control and the principles of control in our national economy (No 190/1981, No 108/1982).

The results achieved in the area of control and quality of production thus far, however, continue to demonstrate that even the Set of Measures for Improving the Planned Management System of the National Economy has not begun to generate completely positive effects. It seems that manufacturing organizations are still finding it advantageous to meet quantitative indicators even at the cost of penalties for products of inferior quality. The contradiction between quality and the quantity continues, although quality and quantity should complement each other.

Why Not Always?

In 1982-1983 we may speak of quality in the sense of good standards, the essential functional properties of the goods, gradual partial improvement and reduction of losses stemming directly from inferior production. The share of such losses in the total production of the ministries of general engineering and electrical engineering industries declined in 1981 below

1 percent. It is important that such losses have been reduced mainly in deliveries for export. The question of concern about the quality in the Ministry of General Engineering is based on a comprehensive solution. There are principles stipulated for inspection of quality. As an example of this approach I may mention the solutions to the inferior quality of UR II tractors by the Heavy Engineering Works national enterprise in Martin and of automatic washing machines and electric water heaters by the Tatramat national enterprise in Poprad. However, we are also receiving indications of a contrary situation. Thus, for instance, defects in the quality of refrigerators and freezers made by the Calex national enterprise in Zlate Moravce were evident once for a short while. Models of consumer goods exhibited at the 15th International Trade Fair in Brno early in April promise that such a trend will be reversed. One cannot ignore the fact that our citizens' satisfaction with consumer goods has a distinctly political accent.

The share of losses from claims for defective goods and waste in the FMHTS [Federal Ministry of Metallurgy and Heavy Engineering] temporarily increased in 1982, and despite a decline in 1983 it has yet to reach the level of 1980.

In 1983 alone we paid nearly Kcs 400 million in compensation for foreign claims for exported goods; to that we must add another more than Kcs 200 million in claims paid by the insurance company for goods damaged particularly because of inadequate packaging and handling. Perfect design of products and perfect technology of their production, which is supervised, for example, by the Inspekte OZO [Foreign Trade Organization], serve as a basis that must also find unconditionally appropriate response in representation in the acquisition, packaging, servicing and availability of spare parts.

Although its service life prior to general overhaul had been extended, even a product of top quality, such as Tatra T 815 truck, would not sell without an absolute guarantee that spare parts would be available, whether in Syria or in the USSR, in Siberia. We cannot afford to let a potential customer harbor even a shadow of a doubt that Czechoslovak products might not be maintained in operable condition throughout their entire economic service life, if for no other reason than because every weakness of that sort would be mercilessly seized by the competing firms which would do all they can to fabricate a bad reputation from every special case for everything that bears the mark "Made in Czechoslovakia." Such loss of trade cannot be expressed in figures, but it is far higher than direct losses from claims.

We have exact data on losses from claims and we know which enterprises share in them. Moreover, we know where their causes may be found. To prevent any repetition, consequences are drawn from the confirmed shortcomings.

At our disposal are extensive guidelines and instructions as well as methodological aids, but they cannot replace ethical political attitudes toward every individual's responsibility for intensifying national labor, responsibility to our society, and thus to ourselves.

The Most Important Task--Improvement of Quality

In the second half of this century quality workmanship is no longer enough. Prompt progress from one standard of quality to a higher standard, expeditious innovation processes aiming at higher technical and economic parameters, which are the objective above all of the automation program, and the use of modern control technology, electronization, new materials and new functional principles are especially important. Many of our products match the top world standards. Last year the share of products with high technical and economic standards in the total production of goods was equal to about 14 percent in heavy engineering, to 13.6 percent in the Ministry of General Engineering, and to 10.6 percent in the electrical engineering industry. The share of new goods with high technical economic standards in the total production of new goods was 37.1 percent in the FMHTS, 32.9 percent in the FMVS [Federal Ministry of General Engineering], and 25.9 percent in the FMEP [Federal Ministry of Electrical Engineering Industry], which shows that we still have many products of average standard. Thus, we deprive ourselves of many advantages. The history of Czechoslovak textile machinery--and, let us hope, not only history--graphically illustrates the importance of higher standards of innovation.

The confrontation of our best manufacturers with world standards has shown that, for example, prices and even delivery terms long ago ceased to be the weakest points of our production; at present speedy innovation is [the weakest point]. Here the management of economic organizations as well as members of the CSVTS [Czechoslovak Scientific and Technological Society] and all public sectors, all innovators must focus their attention mainly on the process of adopting novelties. This involves public sectors and their moral influence mainly because this activity and focus on prompt innovations--possibly by means of public reviews of the processing and implementation of proposals for innovations--are hard to detect by methods of external control, as we know, for example, from the operations of the People's Control Committee, Bureau for Inventions and Discoveries, and Inspekte. The number of decisions issued on ratings of goods in the Grade I category or of technically advanced products may be registered, the observation of terms for the processing of applications for innovation proposals may be controlled, yet there is no standard for prompt reaction to developments in foreign markets. The consequences--failure of exports--come much too late as a warning and after a great delay as feedback.

A "fulcrum of all planning" determined by the correlation of the economic indicators with the data on world trends and the reaction to them should act here. Nevertheless, this correlation is still regarded as very indirect, and thus manufacturers much too often have disregarded marketing analyses and relied on the mediation of trade organizations. This was true when studying the development of demands in our domestic market. One must welcome the initiative of the Federal Ministry of General Engineering, which intends to expand its own experimental stores, or the effort of our foreign trade to involve the representatives of manufacturing organizations to a greater extent in trade negotiations. The application of the achievements of our electronics industry for use in mechanical components of machinery and

equipment produced in other branches seems promising. Thus, for instance, the Kovosvit municipal enterprise in Sezimovo Usti succeeded in combining electronics with machining equipment. The Sigma syndicate enterprise in Lutin conducted successful experiments of this sort with irrigation units. The Elitex municipal enterprise in Trebic combined electronics with knitting machines. Such methods of product innovation should add to the stability of our working people's social welfare which depends on how well we follow the general trend of acceleration and how farsighted the enterprises are in their planning for the future. There are risks involved, but the other alternative would lead to an unquestionable result--loss of perspective.

The work in the preproduction stage has a long-range focus but its results are instantaneously evident. On their basis the good future of the enterprise and, naturally, of economic production units is built. Here materials, energy and labor forces are conserved and electronics and equipment for interoperational and output control find their place.

Where To Give Support?

As for the workers engaged in technical preparations for production, higher demands must be made on the standard of their technical operations in this sense of "acceleration." We know that precisely this area has a number of accumulated problems, particularly in terms of cadres supply, the standard of workers' qualification as well as their willingness to become involved, to accept proportionate risks, to find satisfaction in a life of pioneering work, and to endorse the development.

Inadequate technical standards and inferior quality in some cases are also the reason why foreign trade organizations are rejecting certain goods.

Managers failed to provide necessary conditions for technical control in its position that should decisively encourage a shift in the positive direction. Conditions of objectivity and efficiently operating technical control also include a focus on technical methods for quality testing and control. The shortcomings plaguing our goods may be detected already by input and interoperation control if it has the necessary equipment at its disposal. However, the equipment would be of little value without proper conditions created in the organization, in the status of technical control and in the adaptation of material incentives for the inspectors.

Our engineering ministries are not adequately enforcing the limits on losses caused by inferior production; in certain VHJ's [economic production units] losses are increasing.

There is no sufficiently developed incentive system that would stimulate outputs and include, in addition to material rewards, public recognition for the achievements of the planners, designers, technologists, standards engineers and rate-setters. Prerequisites for quality are not created in the process of production alone but also in some other areas, such as scrupulous maintenance, tool design and production, and all service operations.

It is not an idle observation that "if you wish to learn about the standards of an enterprise, take a look at its tool shop." The production rationalization teams should be given a priority status. Here special-purpose machinery, automated lines, manipulators and robots, control equipment and laboratories preclude potential failure on the part of the human factor and offer preconditions for culture of labor, accuracy, regularity and cost-cutting. Work is being done here for future quality production and losses are preventively reduced.

If we compare the technical and economic standards of our engineering and electrical products, the actual volume of exports and the preconditions for continuous export, it follows that we have a number of branches with a good potential for becoming a base for the further progressive development of the Czechoslovak economy. They cannot be compared merely on the basis of the number of decisions granting a Grade I rating, because then products with a significant volume (for example, the above-mentioned T 815 trucks) would be shortchanged; neither can they be compared on the basis of volumes expressed in Kcs because that would short-change inventive innovations for which it is difficult to estimate future success (for instance, measuring and laboratory equipment). Nevertheless, one may say that promising trends in the intensification program are in the branches of textile machinery, shaping and machining equipment, agricultural machinery and forest tractors, certain branches manufacturing medical equipment, pumps, hydraulic units, transmissions, copiers, some electrical appliances, electric drives, vacuum electronics, [single-stop] vehicles, automobile accessories and some light sources. About 60 branches with a 5 percent share have been involved thus far in the manufacturing program of the Czechoslovak engineering and electrical engineering industries. They must increase.

Products of good quality which meet fully consumers' expectations share roughly 30 percent in the manufacturing programs of about 80 branches. These are, for instance, trucks, construction and road-building machinery, tractors, wheeled vehicles and electric locomotives, rollers, machinery and equipment for the chemical industry, tools, computer, automation and control equipment, distributors, electric motors, excavators, piston engines, ships and anti-friction bearings.

From this review one may construe the desirable direction for differentiated efforts to reach the highest technical level in the world.

It is auspicious that in robot technology, a particularly important sector in which we are behind schedule, the Czechoslovak-USSR planning, design and technology office, Robot, and the Robotech association were organized last year.

The increasing participation of electronics in raising the qualitative parameters of our goods, as demonstrated last November at the exhibit on Electronization and Automation 84 in Prague and by the recognition of our machinery at the ITMA 83 international fair in Milan, is encouraging. We manufacture more electronic products with the highest world standard but

their mass production must begin expeditiously. Here applies what I said about the weakest spot in our production--the rate at which innovations are introduced. Methods for improvement were outlined at the interministerial conference which reviewed our participation in the ITMA 83 fair; its conclusions have broader application.

Advantageous Prices for Products of Good Quality Alone

By improving the planned system of national economy we amplify above all the effect of the economic mechanisms of the management, one of which is preferential treatment for goods of top quality and for technically advanced products. Obviously, even with an improperly lenient attitude on the part of our testing and control organs, our enterprises in practice are applying one-sided tendencies. Many products, even the so-called luxury and fashion goods, which had received preferential treatment on that basis failed to find buyers in our domestic market and are rigorously tested in foreign markets and rated of "standard" quality. Thus, price incentives have missed their mark. We are not consistent in penalizing outdated goods. In 1982 preferential treatment amounted to almost Kcs 4 billion while penalties were less than one-fortieth of that sum--Kcs 90 million. Is this comparison in line with world demands? Even a citizen unschooled in political economy will realize that such a differentiation is not in agreement with reality. Thus, more effective measures and mechanisms must be used. A positive example is the initiative of the construction workers who last year upgraded demands on the quality of production in sectors manufacturing construction materials to the standards of the best European quality.

State testing institutes, the Bureau for Standardization and Measurements and, as the supreme agency, the State Commission for Research and Development and Investments are studying statewide coordination of quality control and systemic regulations. However, such steps do not become effective automatically. Their implementation depends on the people in workshops and offices of production enterprises, in testing laboratories, and in transportation. All individuals involved in production, from the first proposal of the plans to the delivery of the product to the consumer, should work with full awareness that they are part of a chain in which their own work and that of their fellow citizens contributes to final achievements. This demand is evident particularly in the case of subcontractors, who are not always conscious of the increasing losses stemming from minor defects or from standards lagging behind the demands of the final user. Waste--whether on the drawing board or in the draft, in the plan or in packaging--is too costly for us.

* * * *

We are going to war with egalitarianism, in other words, also with sloppiness which cannot be equated with concern, responsibility and initiative. All means must be used to create a climate where a good worker may count on support and where it does not pay to work indifferently and half-heartedly.

This is a highly political task in which the aspect of quality plays a major part; this concerns efficiency in introducing good principles in daily practice and a system of standards, rewards and penalties. The practical result in raising the economic efficiency of the wage system must be reflected in the effect of each worker's influence on the quality of goods. Thus, this issue is not exclusively the concern of wage-setters.

All analyses of the future development of our stewardship lead to the same conclusion. The rule that we must create our own prosperity still applies; however, the focus has shifted. It would be fallacious to think that there is direct proportion: higher gains equal more raw materials, higher consumption of energy, greater exertion and higher losses. The fulcrum of higher achievements was moved to the area of skills invested in goods and services, in their quality--quality of ideas and action with which we may contend against our competitors in the world. Our socialist system has created the prerequisites for this by releasing creative forces. Nevertheless, this is an opportunity which is obviously still before us to be used.

9004
CSO: 2400/326

EFFECTS OF ECONOMIC WORK COLLECTIVES STUDIED

Budapest NEPSZABADSAG in Hungarian 23 Feb 84 p 3

[Article by Katalin Bossanyi: "Concerning the Economic Work Collectives: Primary and Secondary Effects"]

[Text] "The economic work collectives saved us at the year-end deliveries..." This summary statement came back again and again in the remarks of directors at the recently organized machine-industry conference. And although the wording has a fundamentally positive content, much too contradictory phenomena are concealed in the background. In the same way it denotes the inclusions of large enterprise work, the disorganization arising from the deficiencies in cooperation and material procurement and from production's lack of rhythmicity, as well as the possibilities for improving efficiency and unearthing resources latent in the voluntary extra work of enterprisal small groups and in the incentive in proportion to surplus achievements.

Nor is it accidental that the industrial general staff, which in the majority of cases gave voice to its antipathies and its fears at the beginning of the organization of the small enterprises, today prefers to argue in favor of the economic work collectives. Many of them consider the method a second-best solution, but they also emphasize that under the current regulatory conditions they have gained more with their organization than they have lost. Beyond the practical considerations this change of opinion also has a sociological cause worthy of attention. Namely, the storms surrounding the function of the VGMKs [economic work collectives] made obvious--in addition to a more restricted professional circle--to the general public some conflicts which today, seen from the managerial viewpoint, can often confine the scope of movement of large enterprises. For this reason the debates on the function of the enterprisal small groups have changed in the last year or two into a particular economic battlefield; national publicity was created concerning elucidation of the causes and disclosure of the tensions previously treated as a supervisory/regulatory affair.

Particular Battlefield

This debate--which ranges from the one extreme of "a slave for the wounds of large-scale industry" to the opposite pole of "our antagonistic socialist attainments"--seems to be running into a dead end. It is chiefly comparable to that phenomenon in which the warding off and blunting of the unavoidable side effects of medication intended for curing the basic disease become the center of attention. Because--staying with our example--the economic work collectives really have side effects in the economic and social sense. The question is whether they weaken and perhaps neutralize the desirable primary effects, i.e., everything which marcoeconomic management expected, and today expects, from the propagation of small enterprises.

By way of introduction, some characteristic facts: among the small enterprises being formed in different areas of the national economy at the end of 1983 the predominant form was the economic work collective. Today their number is between 9 and 10 thousand, which means that the VGMKs compose more than half of the new small enterprises. They employ approximately 80-90 thousand persons, i.e., seventy percent of the participants in small enterprises have found the possibility for extra income within their own workplace. Most of the VGMKs were created in industry--above all in the machine industry and in metallurgy--but their proportion in the construction trade is also considerable. It is not chiefly organizations in a competition situation and perhaps struggling with surplus capacity and providing work that opened up their gates to the internal small enterprises, but rather the large enterprises which complain about the insufficiency of the workforce. In their case the primary motive was to assure the continuity of production. Or rather they thought that through the VGMKs--by avoiding wage regulations--they would be able to pay their best workers better than the average.

But what are these small enterprises engaged in? One part of the VGMKs was formed exclusively for services within the business establishment and for cooperative and support-industry tasks. If only because of technological reasons the bulk of them do not undertake outside work, do not perform services for the population at large, and thus because of a significant shortage here the butchers and those who do work on the side will dominate the field in the future and obtain extra income without payment of taxes and supervision. Enterprises within the business establishment come into being as a consequence of bargaining between employer and employee. And although this is not free of conflicts of interest, the worker, to be sure, comes off well in the long run, because on the premises, without an investment, with the use of the company's materials and tools he can earn substantially more through extra work. But the company comes off well, too, because the internal small enterprises, which replace compulsory cooperative and outside workers, can supervise the work directly, and to top it all off the company can also decrease its entire management expenditures in consequence of more acceptable

pledged prices on the whole. Today these VGMKs even stimulate competition. Under their influence in recent years, for example, the ancillary workshops of the farmers' cooperatives were formed for similar tasks, the bids of other small enterprises became more flexible, and they also curbed their prices. This, however, can by all means be considered an auspicious course.

On the other hand, the other large group of VGMKs was organized for filling in the "blank spots" of primary production processes and for "stretching" capacities. The operation of these has elicited the most criticism up until now; many consider their spread harmful and call it a side effect. Their reasoning is as follows: these enterprises did not increase their production and their total sales by the exploitation of "loss" resources; nor did their productivity improve. The surplus profit springs from the extra labor force and extra worktime of the economic work collectives. And since the activity of the entire company is not profitable enough, it is to no purpose that the VGMKs work really well; still no benefit to the national economy issues from the company's surplus income. In fact, the surplus wages which thus surge forth can kindle inflationary effects. Since among the companies having economic work collectives at their disposal those of lower efficiency are in the majority, one has to admit there is a lot of truth in this train of thought. Yet the company's conduct is not the cause but rather the result. If in point of fact the economic environment today provides the opportunity for this extensive growth, and actually requires it, if it is possible to attain excess profits with low productivity and weak efficiency, then the fault at least is not in the companies' receiving apparatus.

Production Islands

At the same time it is also a fact that the workforce transmigration has also abated even in this enterprisal circle under the influence of the VGMKs. What is more: in these economic units--in comparison with themselves--profitability is increasing more quickly than in those institutions which have not availed themselves of the possibilities arising from the creation of internal small enterprises. It can be seen that the organization and the efficiency of the work performed in the VGMKs--in the case of identical tasks and in spite of harder conditions--surpasses the achievements of the primary worktime. The management and the enterprisal conduct of the small work groups--based on self-administration--in comparison with general company practice is much more democratic and better at taking initiative. All this proves repeatedly: if persons are paid in proportion to their surplus output and if the incentive is linked to the individuals and the tasks, then under identical technical conditions a sudden growth in efficiency is attainable.

But the experience of the VGMKs can also serve as a powerful argument in the ongoing dispute about wage regulation. It is apparent, namely, that if their method is opened to the companies so that without separate regulation the wages are charged to the expenditures, then this--in spite of industry's real indifference to expenditures--induces more sensible management than today's. In other words: despite more informal conditions the VGMKs are not overpaid.

At the same time the VGMKs today constitute "production islands," and because of the distortions of internal organization, the weakness of interest, the defects of the price system and subjective reasons, they cannot have repercussions on the entire company management. What is to be seen, rather, is that--for a variety of reasons--the companies begin to mold their internal small enterprises in their own image. These, however, are likewise thought-provoking secondary effects! All the same, if through the VGMKs it is easier to trace and reveal at present which internal organizational and management defects and which external regulatory and administrative restrictions are preventing more efficient direction of the large enterprises, then this is more of a positive side effect, because it can contribute to the clear-sightedness of the collective and to the beginning of genuine therapy instead of symptomatic treatment.

At Stake in the Dispute

For this very reason, when we discuss the different effects of the operation of the VGMKs, the controversy--expressed or unexpressed--no longer continues about the small enterprises within the company. The subject of the dispute--or, if you prefer, the stakes!--is much rather this: which regulatory, organizational and interest-related obstacles does the present-day management of large enterprises have, and how might it be possible to increase large-scale industry's flexibility and competitiveness by acceleration of the reform process? Thus the fundamental question sounds more like this: how could we, as soon as possible, make the workers interested in the primary time business undertaking and bring about the realization of large-scale industry's organizational efficiency?

12327
CSO: 2500/341

SITUATION OF ENERGY SUPPLIES DISCUSSED

Budapest MAGYAR HIRLAP in Hungarian 30 Apr 84 p 8

[Interview with Dr Viktor Dank, chief geologist of National Petroleum and Gas Industry Trust, by Peter Vanicsek: "The Oil Picture: Possibilities of Domestic Reserves"]

[Text] It is public knowledge that we must be frugal with energy. The price increases of raw materials and the decrease in the number of sources of purchasing them warn us of this. In this situation the value of the domestic energy reserves and also of its most valuable element, hydrocarbons which can be produced in a variety of forms, are obviously increasing. The question is whether we can handle it properly and whether we are able to discover our existing reserves. We talked about this with Dr Viktor Dank, chief geologist of the National Petroleum and Gas Industry Trust [OKGT].

[Question] Ever since I have been aware of having a mind, every economic analysis worth anything began with this: we are a country poor in raw materials...

[Answer] This is not true like that. Among the approximately 150 countries of the world we are in about the one-hundredth place with respect to area, but we are in 17-25th place with respect to our mineral resources. We have significant bauxite deposits, a pretty good supply of natural gas, and the good quality petroleum which can be produced in our country plays a role in our economic life.

[Question] Of course, this is not the treasure of the fabulous East!

[Answer] No. There in the richest locations the yearly production of a single well exceeds our total domestic production. But in spite of this the 2 million ton annual petroleum production even so saves a lot of hard currency for the country. Within the CEMA we are in third place in oil and gas production, only the Soviet Union and Romania are ahead of us. Our discovered reserves, if we are bringing them to the surface at rates similar to the present, will be enough for another 10-12 years.

[Question] And what will happen then?

[Answer] In Hungary since 1937 the yearly discovery has been the same as our consumption, so that looking ahead for ten years is made possible each year by new fields. Our plans to the turn of the millennium take reserves into consideration about which we do not even have a faint idea at this time.

[Question] Does this not cause any difficulties in planning?

[Answer] No, because by interconnecting exploration, production, processing and trade we can flexibly plan the work processes built on each other. But it is also a fact that with the present technology we can not yet discover the entire reserves, with modern equipment many other deep locations heretofore undiscovered can also be explored.

[Question] Some pessimistic prognoses have seen the light of day which predicted that the petroleum reserves will run out. Does this not cause uncertainty with an economic-strategic item of such key importance as oil?

[Answer] These rumors are excessively pessimistic, and they are not realistic. Just as it would be irresponsibly optimistic to expect a reversal of the price explosion's effect because there is a temporary decrease in oil prices. Among the socialist countries only the Soviet Union is self sufficient, and even in worldwide respects it has significant petroleum and natural gas reserves. The other CEMA member countries depend on large oil imports.--But oil production is increasingly costly even in the Soviet Union and no matter how rich the country's explored and estimated reserves are, drillings are shifting more and more towards the desolate Siberian areas, which increases the difficulty, slows down and increases the cost of exploration and production. This is one of the reasons why Deputy Prime Minister Baybakov declared that the quantity of petroleum sold to the friendly countries can not be increased.

[Question] This places additional tasks on this country's oil miners. What future does the hydrocarbon expect to have in this country?

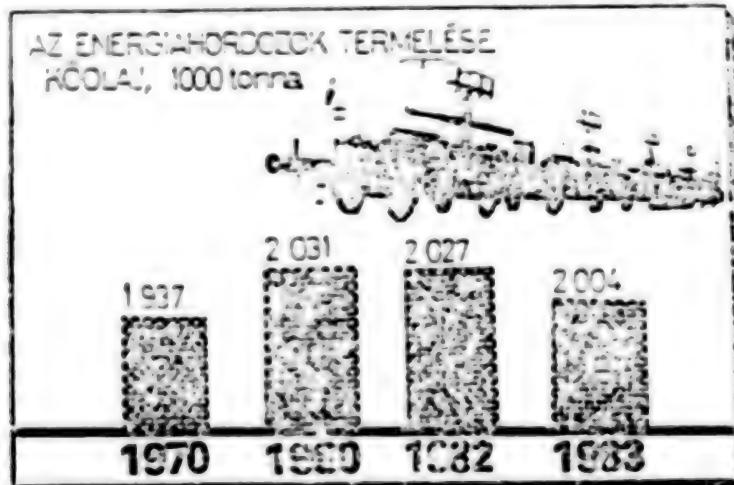
[Answer] Unfavorable tendencies prevailed mainly in the era of cheap hydrocarbons, but some prevail even now. These want to satisfy the increasingly hysterical demands primarily through extensive development. That is, they want to cover the oil and natural gas demand by exploration and production in more and more new fields. However, only 30 percent of the oil reserves of the abandoned fields can be extracted. Or, to word it more bluntly: 70 percent of it remains under the earth. Production can be improved to 50-60 percent with the most modern methods, and this is especially profitable with the Hungarian oil which is of good quality, does not contain salt or too much sulfur. The import situation also encourages this solution. The training of explorers, drillers and geologists satisfies all requirements and this is a good foundation for further progress. One thing is missing. the capital.

[Question] What are the goals for the near future, even until the new methods begin to produce directly measurable profits?

[Answer] We want to maintain the present level of oil production until 1990, and--to use a technical term--we want to achieve that domestic refining produce even more so-called white products. This aim is served by the catalytic cracking gasoline facility which produces more refined gasoline from the same amount of crude oil. We are trying to develop some kind of a market strategy in the oil industry so that we would be producing for what there is a demand.

Of course this is not so difficult to do since only a small portion of the total demand can be satisfied from the domestic resources.

But it is in the national economy's interest to offer the domestic oil products on as high a level of processing as possible, since this way we do not have to pay hard currency for the costs of refining abroad. Rapid domestication of the most modern methods is needed, so that our production culture be "ready every day." Even today, but also for the next generation it will be a basic demand for this that our professionals be able to read and speak at least two foreign languages and in regularly held seminars abroad they can acquire the application of the most modern technologies.



Production of energy sources
Petroleum, 1,000 tons

8584
CSO: 2500/335

OFFICIAL DOCUMENTS ADVOCATING RECENTRALIZATION DRAW FIRE

'Front Door' Approach

Warsaw ZYCIE GOSPODARCZE in Polish No 16, 15 Apr 84 pp 1, 6

[Article by Tomasz Jezioranski: "Through the Front Door"]

[Text] Everything points to the fact that reform is still not allowing some people to sleep nights. Enterprise managers are racking their brains about how to get enough materials so that the wheels can turn automatically while some officials are lying awake and thinking about how they can demonstrate that without manual control everything will come to a standstill.

At the National Conference of PZPR Delegates, one of the delegates from the Poznan TELKOM, Jan Kolodziejczak, severely criticized the proposed changes in the organization of industry and the methods by which they will be conducted as announced recently and vigorously publicized by the Ministry of Metallurgy and Machine Industry. They are described in the document titled "A Plan for Improving the Organizational System in Industry."

Nothing New

This document and another one ("Setting Up Organizational Structures in the Economy"), which represented the supraministerial point of view in almost identical words, opinions, formulations and ideas, were both discussed in a similar vein at the last meeting of the Commission for Economic Reform. Therefore, I have studied both documents.

The diagnosis which begins the second report reads as follows: "Organizational changes made during the application of reform have largely reduced the influence of the central authorities of the state administration on the operations of the enterprises (...). This is especially apparent because the direct contacts between the central authorities and the enterprises encounter many obstacles, including the barrier connected with the number of economic organizational units (...). This problem cannot be solved within the framework of the structures now in place, which are based on associations of state enterprises, and particularly on voluntary associations."

This diagnosis is followed by the basic thesis: "The influence of the state (...) on an industry of high manufacturing potential is possible only (author's emphasis) through its concentration adapted to the concrete needs of the branches and subbranches. This is consistent with the tendencies and practices established in all industrialized countries."

The further portion of both reports is of a conceptual nature; it proposed the intermediate structures which should be formed without delay. These are: a supervisory council, a works complex, a socialist corporation and a socialist concern (the last two are collectively called industrial economic organizations). Casual mention is also made of reoriented associations. All at the same time, not in turn. The differences between particular structures are slight details, but all of them are tied together by the idea of eliminating self-dependence, self-management and self-financing in enterprises and transferring decision-making to the purview of the reconstructed intermediate structures.

"If the supervisory councils are to be forms of managing (author's emphasis) the enterprises, they should be given the appropriate (author's emphasis) authority. This includes: suspension of directors, appointment of temporary managers, deferment of decisions made by directors, evaluation of enterprises and their production and organizational intentions, arriving at conclusions regarding amounts of fixed salaries, bonuses, prizes, awards and punishments for directors. Without this authority the councils will become still one more (? --author's P.S.) organ which will give a basis for criticism of the system of management and the advisability of appointing these types of organs."

Now for the works complexes. As we know the legislation of reform did not break them up *ex lege*. Some of them, and these were the organizations which were the least genuine, liquidated themselves, and others which were granted self-dependence are not doing at all badly and their activities are bringing social effects that are certainly no worse than during the period of compulsory concentration. Still others are operating with varying success.

In the Ministry of Metallurgy and Machine Industry alone there are at this time 15 works. But the ministry feels it necessary to establish another 13 such works, of a strictly subbranch nature. These are to be such works as light sources, medical equipment, chemical source of current, cable industry, machines for the textile industry, air pollution control equipment, machines for the food industry, farm machines and equipment, commercial trade equipment, the roller bearing industry, fittings and pumps and metallurgical construction and assembly.

In all this would mean that 185 units would be deprived of self-dependence and either the old association structures would be restored through a paper process or plant structures would be created from scratch (e.g., light sources). At the works level decisions would be made on such subordinate-enterprise matters as development and modernization, technical advancement, foreign and domestic trade, and also on "selected factors, problems of economics and incentives."

Two further structures which the supraministerial plan is demanding are a "socialist" concern and a "socialist" corporation. In both of these "economic

industrial organizations," as the detailed report describes them, the enterprise ceases to be the planning unit, and loses its commercial, developmental and financial independence. All of this for the cap, which for greater certainty of the exercise of authority also appears as a "unit of centrally distributed means of production."

Initially the formation of six such economic industrial organizations is proposed: iron and steelmaking (5 subbranches), electronics (2 subbranches), shipbuilding industry (4 subbranches), rail vehicles (2 subbranches), automotive vehicles (3 subbranches) and the aircraft and engine industry (4 subbranches). There also seems to be a need for establishing similar entities (called "socialist" concerns or corporations) in the coal, power, petrochemical, fertilizer and rubber industries. And so we are excluding several hundred more enterprises from reform.

The authors relate to associations--particularly the voluntary ones--with apparent resignation, as if they believe that nothing good will come out of them anyway. But for the sake of order they observe that to strengthen supervision over the compulsory associations, representatives of the supervising ministers should be added to the associations' councils (in a suitable number) and the agreements for forming an association contain a clause giving "pertinent" rights to the minister's delegate.

A Short Memory

Thus the reports concern an extremely important, extremely difficult, and somewhat equivocal subject. We do not really know the actual scope of the authors' deliberations. Are they referring only to a concentration of management or also to a concentration of production and a concentration of capital? I am guessing that they are interested only in the first type of concentration, since they are giving their attention to just the aspects of this problem and are silent on economic matters.

Despite appearances, there are not too many universal rules in this area. We are living in a time of changing values, which encompass, to a greater or lesser degree, the entire developed world. But we can talk about one rule with complete certainty, regardless of the differences in political system or national considerations. Namely: the system by which the economy functions must be efficient, and it must ensure that economic microselections can be made at the same level at which an economic accounting is made. In this sense the problem comes down to which body is the basic economic unit.

In this field the diversity of solutions can be great because there are relatively few constants and a large number of variables, which does not change the fact that over the period of the past 30 to 40 years the world lived under the spell of large structures. But this same world for some time has been asking itself the question: is large the same as efficient?

The differences between a capitalist economy and a socialist economy are too great to make a cheap comparison; rather, we should search, with restraint, for Western references to our solutions. But not only where, and in the socialist countries also, searches are being conducted for optimal solutions in the

area of organization and management. Everyone searches a little differently, but we see a quite clearly delineated direction towards decentralization of tactical operations while maintaining centralization over strategy.

In the processes of deconcentration, Hungary has gone the farthest. With a stubbornness deserving of admiration they strive to improve the efficiency of the system by which their economy functions. The Hungarians began their reform in the late 1960's only with a new econo-financial system, maintaining the old structures. But since 1981 they have eliminated most of the intermediate structures (and, in addition, made some deep economic reforms at the central level), making their enterprises self-dependent. The Hungarians came to the conclusion that first, concentration of decisionmaking at the intermediate levels together with the principle of self-financing creates a system that is illogical, and second, that discontinuance at one time of reforms in management and organization made it necessary to return, in the mid-1970's, to the old system and, as they say, caused a loss of several years.

In our country the level of concentration and the hierarchy of structures of management has been carried to extremes. It is true that the centralized and directives-type system has played a positive role in the reconstruction (particularly)-industrializational phase of development, but as time went on this role became increasingly negative. After a while the system found itself in blatant disharmony with the development of productive forces. Socialism not only built factories and increased the complexity of the economy. It also shaped social consciousness, educating the people and convincing them of their own subjectivity.

The decisions to concentrate, made under pseudoscientific banners, led to the destruction of this invaluable tissue of the economy--which the small enterprises form. During 1965 to 1982 the percentage of small enterprises (up to 100 people) in socialized industry dropped from 25.7 percent to 9.6 percent, while the large (over 1,000 people) increased from 12.9 percent to 20.3 percent. The average number of employees per enterprise increased from 547 people in 1965 to 979 in 1980 (to drop to 811 in 1982). But looking at it in another way... in 1980 only 0.5 percent of the total number of people employed in industry worked in small enterprises, whereas 15 years earlier this index was almost 6 times as high (and, in any case, still much too low).

In sum, we have achieved a degree of concentration in industry which is unheard of in developed countries, not just capitalist but also socialist. The share of small enterprises (i.e., up to 100 people), whether measured by production or employment, in production and employment in general in the FRG, France or Italy, is many times (even 10-fold) higher than in our country. Volkswagen has several thousand coproducers but stocks for only 6 days' production. This certainly attests eloquently to the certainty of the system of organization, to say nothing about its flexibility or resilience.

Meanwhile our economy, as concentration grew, became more and more unwieldy, less and less flexible and less and less controllable. The subbranch monopolies became powerful pressure groups, bleeding investments, priorities and privileges without any regard for the public interest. The group A monopolies, especially metallurgy, automotive and machines, excelled in this.

In 1980 almost 90 percent of the domestic turnovers in this group served only to increase the production rate of this group. Only 24 percent of the final production in group A served production. In industry's final production there were almost 3 zlotys of domestic turnover per 1 zloty of consumption by the population. That is how the self-drive and particularism mechanism, which reform is supposed to render powerless, operated.

And yet today it is proposed that reform be rendered powerless and that there be a return to the still-not-completely-forgotten system under the slogan of a struggle with... the particularism of enterprises. Are signs of such mini-particularisms appearing? Of course they are, although when they were supported by a cost-effectiveness analysis they became something much healthier than the particularisms of the large organizations.

The concern of an enterprise for its own well-conceived interests is not at all blameworthy, remarked Kazimierz Barcikowski, PZPR Central Committee secretary, in ZAGADNIENIA I MATERIAŁY (No 10, 1984). Furthermore, this concern is the basis of health, provided that it is held within reasonable limits.

These limits in reform are set by the state and to keep the enterprises within them the state has a wide range of economic instruments, which are effective to the extent that they are directed at the small and not the powerful structures whose particularisms are always more dangerous and difficult to combat. It is true that these instruments are not always used skilfully and are not always effective. But it is hard to deny that they create much greater possibilities than do the directive methods directed at the trusts, corporations, POCs [expansion unknown], WOG's [Large Economic Organizations], associations, etc.

The experience in this area is extremely enlightening. After all, in past years the state almost entirely lost control over the subbranch monopolies. Anyone who doubts this should recall the history of the disaster of the notorious economic maneuver. It would really be hard to understand what the reason would be for returning to a state much more humiliating for the state, and much worse for the economy. Who would gain and who would lose in reviving a structure incomparably less controllable than the present one?

But the final proof that this system led to disaster was the adverse accumulation of industry in 1979--indeed a great surprise after a string of unceasing successes. But this was not the worst result. The greater evil was the fact that the centralist-directive system stifled man's inborn creative instinct, developing the consumer instinct to monstrous proportions. The entire subculture and logic of this system, which was reciprocally linked with the policy being implemented at that time--a policy inescapably entangled in contradictions--incapacitated the people economically at the extremely high--morally and materially--expense of consumer servitude.

The medicine for all of these illnesses is supposed to be reform, whose essence is expressed by the formula of the "so-called"--as our resuscitators write--"three S's" [self-dependence, self-government, self-financing]. Is this an effective medicine? Of course it is too early to give a categorical, unequivocal reply. During the past two years growth tendencies have appeared not

only from the standpoint of quantity but also in efficiency. It is now being said that these results are not as great as was expected, and this is true. But there is also another truth. It can be said, after all, that in relation to the instability of the econo-financial system and the uncertainty of the success of reform, the results which it has produced far exceed expectations. It has been proven that the *sine qua non* condition for the system to be effective is that it must be stable over a long period. This has been proclaimed, therefore prudence would suggest caution in passing judgment and patience in awaiting proof that reform will be a fiasco.

Function of the Goal

Signs of the arousal of economic thinking and initiative, resourcefulness and foresightedness may not be striking but they are noticeable. These signs have been quite rare in socialized enterprises, which everyone deplored. But they were known in the private sector--the only sector which the state always controlled through the use of economic instruments with an effectiveness worthy of note,* despite the scattering. And maybe not at all in spite of but because of--because of the fact that between the center and the organizational unit there were no intermediate elements which had their own interests.

The authors suggest that organizing the economy on the basis of a self-dependent enterprise is nonsense. Perhaps it is. No one is saying that an economy composed strictly of elementary structures is organized optimally. The structures should be as different as are the realities, needs and possibilities. The joke is that contrary to the authors of the documents, reform does not furnish any ready model and does not enclose the organization and management system within a dogmatic framework.

Legislation makes a state enterprise a basic element of the national economy "at the entrance," leaving an open field for organizational evolution. The creators of the law took into account only specific experience, but they also bore in mind that a good law cannot obstruct life. They did not close the door to integration, foreseeing the formation of all kinds of associations, joint enterprises, mixed enterprises, etc.

In this light the reform laws see organizational structure as the function of a goal which the workforce must perceive with full awareness and must want to achieve. I think that this is a solution which is very conducive to the restoration of the true meaning of the idea of "integration," lost through years of administrative, voluntaristic, organizational manipulations.

But the proposals contained in the reports discussed are the function of what? In the name of what kind of rational goals is an appeal being made for the next wave of destabilization? Unfortunately, the authors maintain a discreet silence in this matter. It is true that they keep using the word "effectiveness" over and over, but, and I am no longer talking in generalities but at least

*In speaking about effectiveness I have in mind the achievement of the goals envisaged by the state; however, I am not passing any judgments on whether these goals were always correctly formulated. But regardless of this, the economic methods were effective.

partially by way of illustration, they do not demonstrate it. The documents contain no shred of proof. They do not contain any economic analyses, any solutions or options supported by figures, any alternatives, or simulating calculations.

Instead of relevant economic arguments we have, as befits officials, perfectly delineated structures, anticipated internal organizational charts of specific entities and their authority so perfectly assigned that, really, all that is lacking are salary schedules. The great specificity in just this area reflects the real intentions of the proposers of the plan. The concern about a greater influence by the state on the economy is simply a smoke screen; in essence, what is proposed here is a restoration of influences and a return to the old methods of economic bureaucratic functioning.

Debate About Method

The great virtue of the legislation of reform is that without closing the door to the natural processes of integration it placed large obstacles in the path of certain methods and operations. Methods which give no consideration either to the desires of the workforces or economics, or--finally--to social and political conditions. Methods which treat people like pawns on a chessboard. In this sense the law of reform is a guarantee of the democratization of the economy, or that area of life in which contemporary man is most publicly active. But what methods do the authors want to use in the realization of their intentions?

As far as associations are concerned, because they have written off the voluntary ones they are simply demanding that the number of mandatory associations be increased. However, the technique which they propose for setting up supervisory councils is a little more refined.

"The law on enterprises prejudgets," they note with sadness, "that a supervisory council can be established only over an enterprise whose founding charter contains a provision for this." So what are they doing? They are demanding that immediate "action be taken aimed at... verifying the founding charters of enterprises." By the way, this is the only self-critical element. It turns out that the authors themselves neglected to make the necessary entries into the founding charters in time, so occupied they probably were in thinking about their "restorative" plans.

But the methods for building the works were the most interesting. Listed first are the "examples of preferences for works, and the plants making up these works, which differ from the generally binding principles of the economic system." Six such carrots are listed: intraworks establishment of a measurement of net (probably as part of the state's greater influence on the economy), income tax reductions, exemption from sales tax, credit easements, several-years' exemption from payments into the Vocational Activation Fund, and preferences in obtaining funds for import.

This is a solid pro-inflationary package--in the opinion of the planners really in accordance with the spirit of hard-money policy? But the authors, it appears,

are realists, because they write "it does not seem possible to establish a works in this way. Any preferences which can possibly be foreseen (author's emphasis) will not be an adequate counterbalance for the self-governments to decide to relinquish the so-called three "S's." Under these circumstances, they conclude, there remains essentially only one way: issuance of an applicable law imposing a requirement that a works be established and giving appropriate authority to the founding organ (author's emphasis). "But we should expect resistance"--they loyally warn those who possibly would fall upon the idea of implementing their concept.

--Thus, first it is anticipated that tax reductions and other reliefs would be employed, and if this is not enough, then orders would be used, J. Kolodziejczak summed up, asking rhetorically what this has to do with reform, about which the documents contain very little, and what there is is mere verbiage.

I must say that for me the "methodological" approach is the most depressing one. It is bad enough that the proposals are a manifestation of the desire to bring the old system back in through the front door. It is even worse that this is a propaganda ploy to do this by means of the old methods also. This demonstrates not only intellectual defectiveness but also blindness and deafness. These traits are distressing in any case, but totally impermissible in people hiding behind an official screen.

Worst of all is the fact that the proposals are not the spontaneous blossoming of joyful creativity on the part of officials suffering for lack of useful assignments. They are a successive phase of ideas persistently developed and publicly promoted for at least a year, i.e., from the moment that it became clear that martial law was not declared in order to return to the old methods of managing the economy.

I am referring to the "Proposals on the Role and Function of Founding Organs and Increasing the Concentration of Industry and Defining Intermediate Levels," disseminated in the spring of 1983 and developed from the supraministerial position. I am also referring to the plan to modify the principles and laws of reform, released last year by the leadership of NOT [Chief Technical Organization] to the Commission for Economic Reform and rejected in toto by the latter. The intent of the changes proposed in that plan was also a return to hierarchical structures and a ~~new~~ ~~new~~-type system of management, using administrative methods which did not include economic, political and social accounting.

The latter, which was the most expanded form of always this same idea, aroused a political echo of which Kolodziejczak's voice is a symbol. In the industrial circles these proposals are interpreted to be a portent of a retreat from reform--the important component of the Ninth Congress' party line, confirmed unequivocally by the National Conference of PZPR delegates.

For, Against Industrial Concentration

Warsaw ZYCIE GOSPODARCZE in Polish No 19, 6 May 84 p 7

[Article by Tadeusz Oldakowski: "Against the Current"]

[Text] From Tomasz Jeziorski's article titled "Through the Front Door" (ZYCIE GOSPODARCZE No 16) it appears that the authors of the documents he discusses, in proposing concentration of management, are referring to world tendencies. Jeziorski rejects this argument but does not expand the subject. It would be well, therefore, to take a closer look at the problem of organizational structures in world industry, and particularly to see Poland's economy in the light of the economies of other socialist countries.

In all of the socialist countries in the 1960's, and particularly in the 1970's, small organizational units were combining into larger ones. This process reached its highest peak at the end of the past decade. Nevertheless, the rate and scale of concentration of production differed in different countries, just as the desire to revise the political structure differed also.

As K. Poznanski notes in his article "Innovations in Hungarian Industry," Hungary was the first to arouse itself from lethargy, perceiving the extreme concentration of production as one of the important factors contributing to a widening of the technology gap in relation to the leading developed countries (see ECONOMIST, No 1/2, 1982). I will not expand on this subject at this point but I do recommend that this article be thoroughly studied, especially by those engineering circles which advocate concentration specifically in order to narrow the technology gap. Under what is sometimes extreme monopolization large structures do not necessarily promote technical progress.

But let us go on to facts and tendencies. First of all I suggest that we take a look at the structure of industrial enterprises according to the number of their employees. Table 1 contains the applicable data.

What conclusions arise in the light of the data contained in the table?

First: at the starting point, i.e., in 1976, only Romania had a higher percentage of large enterprises than Poland (decidedly higher) and so did Hungary. Second: in that same year all countries with the exception of Romania had more small enterprises than we did. Third: only Romania had a larger share of medium enterprises than we did, which is extremely important if the economy is to function correctly, on the condition, of course, that they are part of an entire structure which has been properly established.

As far as that structure is concerned the data seem to show that during that period Poland recorded an increase in the number of small enterprises (13.9 percent, of which 3.3 percent was during the course of one year and 10.2 percent

Table 1. Number of Enterprises, in Percent, by Number of Employees

(1) Kraje ¹	(2) Przedsiębiorstwa z liczbą zatrudnionych		
	to 500	501-1000	over 1000
(3) BULGARIA	a	53.7	15.8
	b	70.8	15.8
	c	71.5	15.6
(4) WĘGRY ²	a	62.7	14.6
	b	60.7	15.7
	c	59.3	17.1
(5) NRD ³	a	81.1	8.8
	b	81.2	8.2
	c	77.4	10.9
(6) POLSKA	a ⁴	62.7	17.3
	b	68.1	14.7
	c	71.4	14.1
(7) RUMUNIA	a	29.8	23.0
	b	27.9	23.9
	c	27.3	24.2
(8) ZSRR ⁵	a	77.0	10.0
	b	—	—
	c	—	—

*Excluding Czechoslovakia; statistics there do not include local-area and cooperative industry and therefore the data are not comparable.

¹ b - 1980

² b - 1980, c - 1981

³

Data cover only units which balance their accounts independently, i.e., approximately 4,500 units.

⁴ No data available for 1981-1982.

Key:

- | | |
|---|----------------------|
| 1. Country* | 5. GDR ² |
| 2. Enterprises, with number
of employees | 6. Poland |
| 3. Bulgaria | 7. Romania |
| 4. Hungary ¹ | 8. USSR ⁴ |

during 5 years) and a drop in the number of large enterprises (27.5 percent, of which 19 percent was over a period of 5 years and 10.5 percent was during the first year of reform) and medium enterprises. These data, especially those pertaining to small enterprises, are not comparable, however, because in 1976 the statistics covered only about 4,500 enterprises while during 1981 and 1982 there were already about 5,300 self-dependent units. Considering this difference, the growth in the share of small enterprises appears to be very problematical.

In summary, it can be said that although in our neighboring countries the 6-year period 1976-1982 can be described as a period of structural harmonization, in Poland this harmony was shattered, particularly by the growth of a dangerous gap between large and small enterprises. Let us compare these data with others, contained in the next two tables (Tables 2 and 3).

The data contained in Table 2 are a more accurate portrayal of the processes shown in the preceding table. Data concerning Hungary are particularly characteristic. Although the share of small enterprises shrunk, the share of employment in these enterprises in total employment grew. It is the reverse at the opposite end of the pole. The share of large enterprises grew, but the share of employment in these enterprises in total employment dropped. This shows a conscious formation of organizational structures in industry, based on strengthening the cadres in small and large enterprises and substituting mechanization for human labor.

It is difficult to draw the same conclusion when we examine data pertaining to our industry. The growth in the share of employees in small enterprises is twice that of the growth of share of these enterprises in the total number of enterprises. This theoretically favorable tendency of increasing the cadre of small enterprises is accompanied by another tendency, however--a progressive concentration among medium enterprises. In addition to a distinct drop in their number, we have a growth in the share of employees in these enterprises. If we were to break this group of enterprises (from 501 to 1,000 people) into subgroups, it would probably turn out that the enterprises which are close to the upper limit of employment, i.e., those which are adjacent to the medium and large, will be strengthened in number.

In turn, we look at the large enterprises and see a progressive deconcentration in all countries except Poland and Bulgaria. The ratio of the share of employees in large enterprises to share of large enterprises drops from 8.76 to 5.07 in the GDR, from 3.3 to 3.06 in Hungary, and from 1.78 to 1.74 in Romania. But in Bulgaria it rises from 3.83 to 3.94, or slightly, while in Poland it jumps from 3.31 to 4.21. And so we see very clearly that we are going against the current. Table 3 shows the effects of this strategy.

Table 3 should be read along with the data on the preceding table. What is most striking of all is the improbable increase in the share of production in small enterprises in total production. This is an almost 46 percent increase at a scarcely 27 percent increase in share of employees. In the mid-1970's 17.4 percent of the employees accounted for 16.2 percent of industry's total production, which gives an 0.93 index. But already in the first year this index rose to almost 1.07. Meanwhile, both in the medium enterprises and especially in the large ones, the ratio worsened. In the medium enterprises it dropped from 1.12 to 1.05, however in the large ones it dropped from almost 0.99 to 0.96.

It is worth noting here that only in Romania is physical labor efficiency also low in the large enterprises, and that also only in Romania is labor efficiency in small enterprises higher than in Poland. And only in Hungary is labor efficiency in medium enterprises higher than in Poland. Nevertheless, the importance of medium enterprises is really diminishing. There is still no lack of those who would like to eliminate the most efficient small enterprises and integrate them into low-efficiency giants under the slogan of effectiveness, efficiency, etc.

I have frequently met with the argument that this or some other organizational structure of Polish industry has been compelled by its objective structure, which to a certain degree is determined by objective conditions; for example,

Table 2. Number of Employees, in Percent, in Small, Medium and Large Enterprises

(1) Kraj *)	a — 1976	(2) W przedsiębiorstwach o liczbie zatrudnionych		
		to 500	501—1000	over 1000
(3) BULGARIA	a	29,7	21,8	48,7
	b	27,2	21,0	51,8
	c	27,9	21,3	50,8
(4) WĘGRY *)	a	14,2	11,3	74,9
	b	14,3	12,3	73,6
	c	14,7	14,2	71,1
(5) NRD *)	a	29,9	14,9	55,3
	b	25,9	18,3	57,9
	c	23,7	17,0	59,3
(6) POLSKA	a	17,4	16,3	66,3
	b	20,3	16,1	63,6
	c	22,1	16,8	61,1
(7) RUMUNIA	a	8,6	12,3	82,3
	b	4,6	10,8	84,6
	c	4,7	10,9	84,4
(8) ZSRR *)	a	20,8	19,8	68,7
	b	—	—	—
	c	—	—	—

Table 3. Total Production, in Percent, in Small, Medium and Large Enterprises

(1) Kraj *)	a — 1976	(2) W przedsiębiorstwach o liczbie zatrudnionych		
		to 500	501—1000	over 1000
(3) BULGARIA	a	29,4	21,1	48,5
	b	27,9	18,5	53,6
	c	28,4	20,9	50,7
(4) WĘGRY *)	a	8,8	12,3	77,7
	b	8,1	14,4	77,5
	c	8,5	16,7	74,8
(5) NRD *)	a	27,3	14,0	58,7
	b	22,8	14,3	62,9
	c	21,3	14,8	63,9
(6) POLSKA	a	18,2	18,3	65,5
	b	21,6	17,6	60,8
	c	23,6	17,7	58,7
(7) RUMUNIA	a	7,1	10,0	82,9
	b	5,9	9,9	84,3
	c	6,7	9,2	84,1
(8) ZSRR *)	a	—	—	—
	b	—	—	—
	c	—	—	—

[For footnotes and key to Tables 2 and 3, see Table 1]

Table 4. Structure of the FRG Industry (in Percent)

(1) Liczba zatrudnionych	(2) Według liczby przedsięb.			(3) Według zatrudnienia			(4) Według wielkości obrót		
	1960	1970	1976	1960	1970	1976	1960	1970	1976
1-9	43,8	43,2	43,1	1,9	1,8	2,0	1,9	1,8	2,1
10-49	31,4	31,6	32,8	8,5	8,6	9,2	7,8	7,9	7,9
50-99	10,3	10,3	10,6	8,3	8,1	8,4	7,2	7,3	7,4
100-199	6,7	6,9	6,5	10,7	10,8	10,9	8,6	8,8	8,7
200-499	4,9	3,0	4,8	17,3	17,3	17,8	17,0	17,5	18,0
500-999	1,6	1,7	1,6	12,0	13,2	13,1	14,6	14,9	14,6
1000 i więcej	1,3	1,3	1,2	40,1	40,2	38,6	41,8	40,8	39,6

Key:

- 1. Number of employees
- 2. By number of enterprises
- 3. By employment
- 4. By size of turnovers

the large role of mining, or the also once-strongly-developed metallurgical industry, that is, those branches in which large-scale benefits are obvious. This is a rather debatable fact. Years ago, when the index of economic power actually was coal or steel production, in the potentate countries, such as for example, Great Britain or the FRG, the degree of concentration of production was much lower than it now is in Poland. But we are living in times in which world ranking is determined by other fields entirely.

Because the authors of the documents, with which editor Tomasz Jezioranski argued, referred (judging by his utterance--without proof) to not only socialist experience but Western experience also, I think it would be well to see how these structures were shaped in the West German industry in 1960, 1970 and 1976. The data are shown in Table 4.

The figures shown in this chart are so eloquent they really require no comment. But in view of other differences I will bring the amounts given into comparability with ours.

Hence, in 1960 small enterprises made up 97.1 percent of the total enterprises in FRG industry, employed 47 percent of the total number of employees in industry and participated in 43.5 percent of the turnovers of the entire industry. Sixteen years later the share of small industries increased to 97.2 percent, the share of employees to 48.3 percent, and the share of turnovers in these enterprises in total turnovers to 46 percent. Exactly the reverse process occurred in the group of large enterprises; their share in total enterprises dropped, as well as the share of workers employed there in total employment, and also their share in turnovers. The year 1970 is a distinct stage in these processes.

There is logic in this. Since, in the 1960-1970 10-year period the shrinking employment in small enterprises (from 47 to 46.6 percent) was accompanied by an increase in turnovers (from 43.5 to 44.2 percent), then somewhat automatically an allocation of labor and capital to this group of enterprises takes place, at the expense of the large ones. Thus in the next 6-year period, both capital and labor flowed in a lively stream to the small enterprises. These

processes do not prevent the FRG from being the world's largest exporter of machines and equipment. And perhaps--considering the indisposition of our own machine industry (see data on foreign trade during the first quarter--ZYCIE GOSPODARCZE No 18) precisely such an organizational structure facilitates such an expansionism or actually makes it possible.

The Federal Republic of Germany is not exceptional on the West European scene. In such countries as Sweden, Holland, Denmark, Austria and Finland, over 80 percent of the total industrial enterprises (and anyway, it is the same with the construction enterprises), employ fewer than 100 people. Why, the FRG is one of the countries which has a high concentration of industry! In most West European countries the scattering is greater. For example, Italy, a country of much greater economic potential than Poland, has not quite 1 percent of their enterprises employing more than 500 people. In our country this index is 30 times higher.

I also call attention to the fact that in Western terminology enterprises employing over 1,000 people are the last group, ranging around 1 percent of the total number of enterprises. In our statistics there are still groups from 1,000 to 3,000, from 3,000 to 5,000, from 5,000 to 10,000, and above 10,000. That percentage of enterprises which in the FRG industry is included in the group "over 1,000 people," or 1.2 percent, in Poland in 1981 referred to the group "from 5,001 to 10,000"!

The conclusions from these comparisons are obvious. Practically speaking, aside from heavy industry large concentration of production is damaging to the economy of every country, and especially for one which wants to or must conduct an open economy and cannot afford to be economically self-sufficient. Set up for long production lots, with a multi-level system of management, large organizational units lose--because they must--in competition with small, mobile firms which are able to quickly retool and change their production. Furthermore in small plants people know very well how useful they or their colleagues are to the plant, which helps work discipline.

But all of the good features of small enterprises and bad features of large enterprises are only heightened by a crisis, contrary to the totally irrational assertions that a large enterprise can better cope with difficulties. It looks as if someone has attempted to prove that by swimming against the current one can swim across a river faster and with less effort than by swimming with the current.

Counterarguments From Other Quarters

Warsaw ZYCIE GOSPODARCZE in Polish No 20, 13 May 84 p 5

[Article by A.R.: "Without Arbitrariness"]

[Text] The monthly PRZEGLAD ORGANIZACJI in its No 2, 1984 issue published an article by Bogdan Miedzinski and Henryk Sadownik, titled "The Formation of Organizational Structures in the Economy." Publishing delays,

which apparently even periodicals struggling for an efficient organization cannot avoid, caused the No 2 issue of PRZEGŁAD to appear on the market at about the same time that ZYCIE GOSPODARCZE published Tomasz Jeziorski's article titled "Through the Front Door." Because the Miedzinski and Sadownik article deals with the same matter, we are presenting the main thoughts of both authors. (The emphasis, the material enclosed in slantlines which appeared in boldface type, was added by ZYCIE GOSPODARCZE.)

In the introduction Miedzinski and Sadownik remind us that during the application of reform some fundamental changes occurred in the organizational structures of the economy--changes which affected all levels. But they cannot be regarded as either a completed process or an autonomous process, because there is an inseparable interdependency between reformation of the econo-financial system and reformation of organizational structures.

"There is a dependency," they write, "based on the fact that solutions in the econo-financial system determine the course of the process of formation of organizational structures. An important condition in the formation of organizational structures on the basis of efficiency prerequisites (and particularly when operating with elements of economic pressure) is that the econo-financial system be 'tightened' and that the demand for hard financing be met."

But at the same time there is a reverse dependency, i.e., the effect of progress in the reformation of structures on the progress of reform in other fields, including also in the econo-financial or planning area. /"Delays in the reformation of structures can really impede reformation actions in other fields."/

This second dependency, which is the main subject of the article, is illustrated by the "characteristic and enlightening" example of Hungary, the authors point out. /At the start of their reform the attempt to eliminate the so-called trusts and replace them with less-integrated associations failed./ Only a new econo-financial system and planning principles were put into effect. But already /after a few years the "trusts began to come back en masse and the associations began to disappear."/ At the same time directive-planning returned and such attributes of the orders-distribution system as the domination of branch ministries over functional ministries and the somewhat-automatic individualization of parameters which was the result of this. A positive turnaround in the Hungarian reform did not occur until the late 1970's, when it became possible to eliminate the intermediate level and further reconstruct the economic center./

The present structure of the Polish economy, Miedzinski and Sadownik write, is inadequate in many aspects because it was formed on the basis of technical-administrative prerequisites to meet the needs of the orders-directive system of management. /The authors list three principal weaknesses in the present structures./

/They give first place to "the high degree of organizational concentration in the economy,"/ i.e., the subject of the "Through the Front Door" article (see ZYCIE GOSPODARCZE No 16) and the article by Tadeusz Oldakowski "Against the Current" (ZYCIE GOSPODARCZE No 19) which documents and develops some themes in Jezioranski's article.

The authors of the PRZEGLAD ORGANIZACJI article call attention to the fact that it is no accident that small plants in the U.S. economy, i.e., those employing up to 100 people, make up 90 percent of the total number of plants, and in Japan, as high as 99 percent of the plants. "Large industry needs small enterprises, because /large-scale benefits can only appear when large enterprises coproduce with thousands, and even tens of thousands, of small enterprises, often made up of just several people."/

Small enterprises which function in the midst of large economic organizations perform an important protective function in relation to both them and the entire economy by cushioning the shock of dislocations appearing in the economic system. They can perform this function because they have considerable ability to adapt and because a possible collapse of such an enterprise entails lower social costs than the collapse of a large enterprise.

Meanwhile, they note, there is no such flexible protective structure in the Polish economy. Less than 10 percent of the total state enterprises are organizational units which employ up to 100 people, and over 50 percent employ over 1,000 people (and this does not include the heavily concentrated cooperative movement). In the construction industry alone the average Polish enterprise is twice as large as in the USSR. In Great Britain, however, half of the construction is done by firms employing fewer than 25 people!

In concluding this subject, Miedzinski and Sadownik write: "It appears that due to lack of a suitably large number of small coproducing enterprises, our large enterprises have not been able to obtain any real large-scale results (the level of specialization, unification, and categorization of production in our industry is very low), yet they have easily succumbed to such weaknesses as administrative excesses, the disappearance of initiative, bureaucracy, and a weak relationship between individual labor productivity and wages. These comments pertain particularly to enterprises and subbranches in the processing industry."

/The second important structural weakness the authors believe to be the "domination of a single-subbranch strategy in the operation of enterprises."/ which feeds monopolistic tendencies. The result is a lack of interest in cost-reduction, unwillingness to innovate, lack of proper concern for quality, etc.

/The third cause is "lack of suitable organizational forms of coordinating the joint actions of enterprises."/ The authors feel that unions are not an adequate form, as proven, in their opinion, by the frequent filling of the "coordinational gap" by bending the form of the union to the actual needs in the area of joint operation. Observation of the functioning associations and also the Hungarian and Yugoslav experiences shows, in the opinion of the authors, that the union form of coordination may be useful in those cases where

joint actions can be accomplished with the aid of relatively simple forms. The authors doubt that unions can perform more complicated coordinational functions--for example, in the area of progress or development.

Finally, the /fourth weakness: "Lack of broad experience in applying, by the organs at the central level, intermediate methods of managing the economy."/ Here the authors point to the inadequacies of organizational and methodological solutions, lack of suitable information systems as the basis for new functions, lack of systems for evaluating enterprises and directors, and lack of research and forecasting systems indispensable to the proper implementation of staff functions.

Going on to the postulational part of the article, the authors point out that /the main, and actually the only, criterion for forming organizational structures at the primary level should be economic efficiency, within the framework of reform/ (and not reasons of a discretionary type). /"The most serious danger/ which appears during the process of formulating strategy for the formation of organizational structures at the primary level /is an inclination towards hasty organizational concentration./ Yielding to this inclination will block (...) the functioning of new mechanisms of reform"--they warn.

Incidentally, the documents discussed in the "Through the Front Door" article are an expression of this tendency. It may be that they are known to Miedzinski and Sadownik, because they note that before /work on the creation of new organizational form begins on the primary level, action must be taken which will "radically improve the efficiency of the organs at the central level."/

Assuming that this postulate was fulfilled, the authors formulate the basic principle which should form the basis of the strategy of forming new organizational structures. This principle, growing directly out of the spirit and letter of "Directions," is as follows: "The partners of central-level organs, in the implementation of the important principles of the government's economic policy, are strong and efficient enterprises." Not the boards of the enterprises' unions, they add, but specifically the suitably selected enterprises. Not necessarily large and not necessarily those to whose leading role we have become accustomed.

Such coordinational subcenters would free the center, according to the authors, from direction coordination of the activity of hundreds of enterprises. Around the leading enterprises would function all of the others--self-dependent, self-managing, and self-financing, but through coproduction ties economically dependent on the "leaders." This would be a natural way to form all kinds of companies, mixed and joint enterprises, etc. However, compulsory concentration would be restricted only to the mining industry and those branches which employ large integrated technical systems (e.g., the power industry).

/"In any case", the authors warn, "we should guard against the automatic formation of quasi-combatants, quasi-concerns, and other such types of entities characteristic of pseudo-management."/ We have enough of our own painful experience in this area.

On the question of compulsory unions the authors postulate that after the 5-year period for which they were organized expires, an economic analysis be made to determine the advisability of their continued functioning. The center has enough instruments available to exert influence on enterprises without anyone's costly intermediation. In exchange, use should be made of connections with enterprises, the bank, administrative organs, and other organizational units formed to accomplish specific goals (e.g., the chemicalization of agriculture).

In discussing others forms of coordination, Miedzinski and Sadownik ascribe particular importance to subbranch and territorial coordination. But this should in no way resemble unions, but should take the form of national chambers of commerce and territorial economic chambers--voluntary societies, concerned with the exchange of experience, training, consultation, settlement of disputes, etc.

The authors see voluntary unions primarily as that form of coordination which stems from individual needs and prerequisites for the functioning of enterprises. They propose that /we calmly wait until this form of joint action becomes crystallized, and discontinue all authoritative attempts at "improving" and "strengthening."/

It seems that this recommendation could well be a motto summing up the entire text of the article. Organizational structures may vary, because there is a multiplicity and heterogeneity of goals in the economy. The point is that they should not be imposed arbitrarily and indiscriminately, but that the needs of those involved be treated seriously and that, above all, all of the pros and cons be counted up with accuracy.

9295
CSO: 2600/976

POLL FINDINGS BELIE OFFICIAL OPTIMISM OVER CONSERVATION PROGRAM

Warsaw ZYCIE GOSPODARCZE in Polish No 18, 29 Apr 84 p 9

[Article by (Jot.): "And Yet the Desire To Gain"]

[Text] In the previous issue of ZYCIE GOSPODARCZE we presented conclusions ensuing from the fourth poll of the KRG [National Economic Council], concerning foreign trade. Certain of these conclusions conflicted with official estimates, which need not mean that the poll was faulty. In this issue we present a selection of data on the management of materials. They also are of some interest.

The first question asked in the poll concerned the scale of material savings in 1983. The first official figures were highly optimistic--so optimistic that the Planning Commission decided to verify them before making them public. The preliminary data of the GUS (Main Office of Statistics) also indicate--as reported by Zbigniew Rogoziewicz, director of the Materials Management Team--that the effects achieved were higher than postulated in the conservation program for last year. These data indicate that the materials-intensiveness of national income declined by about 2 percent (and even more as regards industrial production) compared with the planned decline of about 1.5 percent.

But anonymous responses sent to the KRG by 204 enterprises do not quite confirm such a rose-colored picture. At 19 enterprises no savings of materials were achieved at all; at 17 others more materials were consumed per output unit; and at 79 enterprises the savings achieved did not exceed 2 percent. Thus, altogether, savings of 2 or more percent were attained by less than 44 percent of enterprises. Considering that at more than 9 percent of enterprises no savings were attained at all and at more than 8 percent the consumption of materials had even increased, it appears hardly likely that the average savings could be as much as 2 percent.

This is hardly likely, but possible in theory. For the proportion of discrete enterprises in the consumption of materials within the entire group of enterprises surveyed is unknown. Anyhow, it is good that the GUS once more is verifying the data it collected. It is better to know exactly where things stand than to nourish illusions.

Undoubtedly the most interesting section of this poll pertains to the question of the principal causes of the conservation of materials in 1983. Responses were received from 174 enterprises, and they are indeed--depending on need--surprising or significant.

For these responses indicate that the factor to which some economic politicians are prone to attach fundamental importance, namely, the prospect of rewards and bonuses for conservation, ranks last among the incentives and decidedly at that. Only 18 enterprises attached great importance to it, while as many as 88 enterprises attached no importance at all to it. Ranked as ~~multimate~~, also contrary to commonly held views, was the factor defined as "allocation of materials": only 23 enterprises attached great importance to it, while 91 attached no importance to it. Similarly, high prices of raw and other materials played no significant role; more enterprises (69) attached zero importance to this factor than great importance (45).

What factor then represented the greatest stimulus for the conservation of materials? /It was the desire to produce higher profits for division [among the workforce]/ [printed in boldface]. Great importance was attached to this factor by 74 enterprises (more than 42 percent) and moderate importance by 70 enterprises (40 percent). Only about 17 percent of enterprises believed this factor to be unimportant.

Two aspects of the breakdown of responses deserve special attention.

First, it ensues that the concept of profit is beginning to germinate in the consciousness of enterprises (that is, their workforces) as a simple, lucid and virtually natural concept as opposed to various complicated concepts that require not only arduous calculations but also plenty of imagination, if not mental gymnastics, such as net output. Here, instinct is a good adviser, because it senses that any yardstick other than profit is artificial. Just how artificial is the concept of net output, let it be proved by the fact that the interest paid on inventory-acquisition loans officially serves to increase net output. In other words, in this case higher cost is a justification for increasing wages, which is a rarely encountered oddity.

Secondly, a comparison of the factors considered as ranking first and last tells us something. /The strongest motivation for conserving materials is the desire to increase profits for division [among the workforce] and the weakest, the prospect of awards and bonuses / [printed in boldface]. It can be concluded from this that individual stimuli are weak, or actually are not strong. The hypothesis can also be deduced that the less than 2 years of enterprise autonomy, incomplete and imperfect as it is, have been a stimulus to collective-minded thinking, to thinking in terms of common interests [of the workforce].

In a sense, this hypothesis is confirmed by the responses to two other questions in the poll. The first concerned ways of achieving material savings. Two-thirds of the enterprises pointed to the use of substitute materials. Such methods as changes in the variety or nature of production or modernization investments were mentioned much less often.

The question arises whether the use of substitute materials is possible on a significant scale (owing to actions by individuals benefiting from conservation bonuses and awards). The obvious answer is negative. Such a substitution can be assured only by concentrating the efforts of experts, and its effects benefit the entire workforce rather than isolated rationalizers.

This conclusion is confirmed by analysis of the responses to the last question concerning the effects of savings. (Incidentally, it is not worded too felicitously.) The response, /"Increase in innovative attitudes among the workforce" ranked last on the list--only 16 enterprises attached great importance to this factor, while 67 attached no importance to it / [printed in boldface]:

This confirms that the use of material substitutes is not the outgrowth of some spontaneous collective idea among the workforce but a programmed result that hinges on the competences of experts. However, these competences have not always been high, considering that about 46 percent of enterprises admitted that the use of substitutes was made at the expense of lower quality of products. But the potential of our engineer cadre and its relationship to the progress-financing system promoted by the NOT (Supreme Technical Organization) is a separate subject which was not touched upon in the KRG's poll.

1386
CSO: 2600/977

REACTIONS TO ARTICLE CRITICIZING DRIFT TOWARD RECENTRALIZATION

Warsaw ZYCIE GOSPODARCZE in Polish Nos 18, 19, 20, 22; 29 Apr, 6, 13, 27 May 84

[Letters to the editor]

[29 Apr 84 p 7]

[Text] I read Tomasz Jeziorski's article "Through the Front Door" [ZYCIE GOSPODARCZE No 16) with great interest. But, apart from this interest, the article also gave me some feelings of apprehension, feelings which were relieved only to some extent by the caveat added by the editors (or perhaps by the author himself) to the effect that this was a "discussion article." However, I think that it is not so much the substantive aspects of the organizational arrangements disputed in this article that need to be discussed, but rather their sociopolitical aspect--which the author did such an excellent job of pinning down--, or for that matter their purely political aspect.

As a participant in the economic reform process (I represent one of the so-called "actors" in this process), I naturally feel like I am some kind of remote-controlled component. This is how it used to be, and this is how it is now. However, ever since the first phase of the reform went into effect I have been forced to do some thinking for myself. To be sure, it still often happens that my thoughts are focused on what the next step of the so-called "center" is going to be ("What will they think of next?"). Nevertheless, the very fact that I do have a chance to make the next move is something which I find stimulating, and I derive a sense of satisfaction from being able to play in the game in accordance with partnerlike rules and with a full sense of responsibility. I do not think that I am an isolated example in feeling this way, notwithstanding the fact that I realize, even taking my own firm as an example, that learning how to play these kinds of "mind games" is not easy and takes time.

And now it turns out that they want to send me away from the playing table? Is this maybe supposed to be the kind of game in which I only get to hold the cards while somebody else draws them for me? Unfortunately, this sort of game is no fun. There is more to the object of this game than just following suit. Another thing, perhaps the main thing, that makes this game different is the fact that everybody has to come out a winner!

I understand the economic reform to be a system, and, to put it very briefly, this is a system in which all of its component parts interact with each other in an efficient manner. This interaction is truly reciprocal, and not just one-sided. In a social and economic system every constituent element of the system is aware of its own interests, but all of these elements are still mindful of what lies in their common interest, something which everyone is bound to see. The system cannot be energized simply by pulling levers. I am amazed that, after so many bad experiences, some people still have learned so little.

If I were allowed to have my say in this debate, I would warn against classifying society as being made up of people who are only smart or only stupid. Neither should we be too hasty in assessing the progress of the economic reform. The reason why it has not "gotten off the ground" yet is that it still exists only on paper. The reform still has not penetrated the consciousness of many workers, but this is something that it must do before it will work. These people have to believe in the reform. They have to be persuaded that they are having a personal impact on the future of their enterprise. They have to be assured that they are being taken seriously, that they are being treated as partners.

I have no complaints to make concerning the so far mediocre progress of the reform. This is a difficult, long-term process. But it irritates me that the mechanics, before they have even finished mounting the wheel, are already claiming that it does not roll. Not so fast, gentlemen! We have not even started the engine yet. We do not know yet whether the wheels will roll, and it will take a little more time before we can make any judgments as to why they will not roll. And the wheels will never roll if we are going to be constantly tinkering with the engine just because some gentlemen feel that they are not as important as they used to be.

[signed] A Regular Reader, Warsaw

Tomasz Jezioranski's article "Through the Front Door" reaffirmed my belief that the future of the reform lies not in the realm of the effectiveness of the results which it produces, but rather in the realm of psychology.

Already during the initial phase of the debate on the reform it was clear that its implementation would be obstructed by economic administrators at the national and intermediate levels. The facts cited in this article confirm this. What the authors of both reports are trying to do makes sense from their point of view. After all, these are people who are used to working in the system of a command economy. For these people shifting gears to face up to the vast number of tasks which the reform has set for administrators at the national level is either impossible or would also force them to expend a lot of effort. They would have to start learning about and seeing things they do not like. This is also the reason why they long for the restoration of the old system of running the economy, a system which they found to be so comfortable and familiar.

A serious danger arises from the fact that you do not see very many people around who are willing to take over for them, and so it follows that these decisionmaking echelons of critical importance to the success of the reform may in fact bring about its demise. I get the impression that the balance of power between proponents and opponents of the reform is shifting in favor of the latter.

[signed] Marian Gaj, Warsaw

[6 May 84 p 6]

[Text] When you look around and see how some decisionmakers are suggesting that we go back to where we started from 3 or 4 years ago, you cannot fail but wind up sharing most of the views expressed by Tomasz Jeziorski in his article "Through the Front Door--Incidential Comments on Some Documents Written in an Old-fashioned Style" (ZYCIE GOSPODARCZE No 16). He writes that "over the past 30 or 40 years the world has been preoccupied with a fascination for large organizational structures," and that "for some time this same world has been asking itself the following question: does big mean efficient?" The author points out that, among other problems, large and not very efficient combines still persist in Poland in total disregard of the economic reform. There are 15 of these combines under the Ministry of Metallurgy and the Machine Building Industry alone. "Industrial concentration decisions made in accordance with pseudo-scientific criteria have brought about the destruction of the priceless economic fabric made up of small and [illegible] businesses."

Take the Polish construction industry for example. Intermediate management echelons continue to go too far in imposing their will on this industry. This is borne out by the creation, following the abolition of the syndicates, of the regional construction industry administrations which act as plenipotentiaries of the Ministry of the Construction and Building Materials Industries. Does not this example alone suffice to illustrate how the economic reform is being thwarted by the reorganization of high-level management institutions? It is no secret that right now the ministry with jurisdiction over the construction industry covers no more than 30 percent of the industry's total capacity (this includes the building materials industry), and when it comes to housing construction the Ministry of Public Administration and Land-use Management also has its role to play. So, why do they not just merge these two ministries into one and give it some kind of functional status?

There can be no question but that the time has finally come to restructure the roles of governmental institutions at the national level--starting with those institutions charged with overseeing the economy. This holds true in particular for the sector-branch breakdown of institutional arrangements, also including the rules governing the continued operation of the industrial trade associations. On this score I come close to agreeing with the view which holds that mandatory trade associations should only be permitted to exist in the extractive and power industries and in public service and utility establishments in the strict sense of the word, e.g., transportation enterprises. In all other sectors of the economy an allout effort should be made to loosen the association and combine corset and without ruling out the possibility of going so far as to amend existing legislation. This should also involve

imposing a ban on the formation of mandatory associations (or "regional administrations"), the issuance of explicit directives calling for the break-up of non-cost-effective and cumbersome combines, and, finally (a point I raised without getting anywhere during the debate on the Law on [State] Enterprises), refusing to create any more jobs for "association directors," but only for "association office directors" (a major difference).

I do not think that my opinion on this matter is all that unusual. On the contrary, I think that I am speaking for a majority of the "rank and file" who are interested in finding the most effective ways to implement the economic reform.

[signed] Engr Zbigniew Urych, NOT [Chief Technical Organization] Expert for Capital Project Management, Sosnowiec

Tomasz Jeziorski's article "Through the Front Door" (ZYCIE GOSPODARCZE No 16) is, in my opinion, a good summary of all the deviations from the economic reform. The author has done a very accurate job of pinpointing those institutions which long for modifications designed to bring back the good old days. This article pleased me all the more in that it was finally stated right out in the open that the draft program launched in February of last year mapping out modifications in the rules and laws governing the economic reform was the sole handiwork of the NOT leadership, and not of the NOT membership as a whole. As a member of the Main Board of the Association of Food Processing Industry Engineers and Technicians I myself, for example, had no say in the drafting of these modifications, nor did I even have an opportunity to comment on this "therapeutic" document.

The economic reform, on the implementation of which so much effort is being expended, rules out resorting to an autocratic system of exercising authority. This makes it impossible for poorly trained managers to do an effective job of supervising groups of people and running organizations. This is why they are clamoring so loudly for a return to the "good old days."

Mr Jeziorski writes, among other things, that the state has always resorted to the use of economic instruments only in its dealings with the private sector. Unfortunately, these instruments too have always been applied only to a limited extent. There is still no system of economic levers designed to insure the efficient and stable growth of small businesses. Fiscal decisions are being made on the basis of the current climate of official opinion, and not on the basis of the true will of the working class and society's hopes and aspirations.

[signed] Engr Bronislaw Wesolowski, Warsaw

[13 May 84 p 5]

[Text] I am no economist, but as a so-called informed citizen, who has been hard hit by the effects of the economic crisis, I am a regular reader of ZYCIE GOSPODARCZE because I believe that what we need most right now, something that will make it possible for us to rise up out of the slump we are in right now, is an economically well educated public. Without this even the most

perfectly designed economic reform principles do not stand a chance of succeeding in practice. And precisely because I am a person who is trying to "educate herself economically," regardless of the fact that I most certainly am not as thoroughly grounded as I should be in all of the substantive issues, I feel compelled to comment on issues raised in Tomasz Jeziorski's article "Through the Front Door" carried in issue No 16 of your paper.

I appreciate the elegant tone adopted by the author of this article, but it seems to me that the problem addressed by this article is too serious to warrant playing around with euphemisms. In no way does the position taken by the author of the documents referred to in the article fall within the permissible bounds of the freedom of expression and opinion; this position in fact reeks of outright sabotage. I do not know what prompted them to try and propagate these kinds of views. Could this be written off as having something to do with their own peculiar ways of doing things, rigidified through patterns, private agreements, or what?

I agree with the arguments advanced by Mr Jeziorski as to the economic irrelevance of their ideas. But it seems to me that in a social and political context these ideas are downright pernicious.

My first reaction after reading this article was that these "documents" ought to be simply thrown into a wastebasket, but after thinking it over for a minute I came to the conclusion that the fact that they appeared at all is very dangerous. After all, these documents were brought out into the open bearing the official stamps of approval of offices or organizations which are endowed with substantial decisionmaking powers. And this is why they should be brought out into the open so that next time they do not enter into the mainstream of our economic life through the "back door" and cancel out all of the hard work put in by those people who really care about making a better life for our country.

Incidentally, I am curious as to how a steelworker would feel on reading this sort of document written by experts from the ministry to which they are subordinate. A year or two ago he was electing people to represent him in a workers self-management body. He was promised that this time around there would be no going back on the slogan "socialism for the people and by the people," but now his superiors in the ministry are suggesting that he should go back to being a plain old "working stiff." What next? More policy zig-zags and more promises? Who is going to believe all this?

[s'gned] Barbara Karczewska, Warsaw

In your article "Through the Front Door" you were describing draft versions of official documents, but I am taking the liberty of sending you herewith a document already approved for implementation written in more or less the same style which you were criticizing. The only difference is that it comes from a different ministry. Maybe you are already familiar with this document; all sort of papers make their way to us here in the field, but they usually arrive late. I will not comment on the contents of this document. You can read it for yourself and draw your own conclusions. I would only add that this "Program for the Enhancement of Performance Efficiency in Industries

Under the Jurisdiction of the Ministry of Construction," a program which has been endorsed--as you can see--by the minister and which is totally unclassified and currently in force, was drawn up without any consultations with the affected enterprises, of which there are a great many throughout Poland.

From conversations with my colleagues in the profession I get the impression that no effort was made, before it was signed, to solicit the views of the Committee of Construction and Related Services Exporters attached to the Polish Chamber of Foreign Trade, a body which, among other reasons, was created for the purpose of such consultations. This program went into effect without warning, and I am very curious to find out how it is going to "work". Past experience does not offer much hope. But could it be that we will witness some kind of miracle?

As an employee of a business enterprise I have grown accustomed to the fact that the "higher ups" are not especially concerned about what we think. However, it astonishes me that a "program" like this wound up being approved by the Ministry of Foreign Trade. This is because the minister of the construction industry, under the terms of this "Program," has set himself up as the manager with jurisdiction over export sales matters. But I wonder whether he should not have first proven what he can do by straightening out the problems that exist in our construction industry.

[Name and address withheld]

I read Tomasz Jeziorski's article "Through the Front Door" with great interest and pleasure. The author's extremely interesting and valid conclusions ought not to be questioned by anyone. However, I am of the opinion that the bureaucratic-autocratic hydra has many heads, and these heads are not going to fall off by themselves. A sustained and effective effort has to be made to chop them off.

Of course, when you get right down to it, what these "certain documents" are all about is the fight for survival. This fight for survival is a way of life that determines consciousness. And this is a fight in which no holds are barred. We had better be very careful.

[signed] M. B., Kłodawa

[27 May 84 p 4]

[Text] Feeling that there is a "need to speak out" in response to the fact that "a kind of ideological struggle is being waged over the implementation of the economic reform," the Task Force for Ideological Programs of the Ideology Subcommittee attached to the PZPR District Committee of Łódź-Widzew wrote to us to request that we publish the text of a statement, which was unanimously endorsed at a meeting held on 3 May, concerning Tomasz Jeziorski's article "Through the Front Door" published in ZYCIE GOSPODARCZE No 16 of 15 April:

We would like to thank the author of the article titled "Through the Front Door" and the editors of ZYCIE GOSPODARCZE for running it in their paper. We believe that the mass news media have a duty to cover controversial issues which are of concern to us all and society as a whole. We expect the media to continue to live up to this duty.

(...) [paragraph deleted in source]

In order to have a sense of participation everyone has to be kept informed as to the identities of the instigators and originators of theoretical ideas and plans of strategic social and economic importance.

We know where the proposals for economic reform came from. We know who the members of our party leadership are who are responsible for carrying out approved resolutions. By the same token, we should also know the sources of inspirations and ideas for alternative programs and know the identities of the authors of alternative plans being considered by government agencies.

...We have to know what we are fighting against. We have to know this so that the mobilization of public opinion cannot be thwarted by expurgated, incomplete information. The lack of complete information about strategic plans and the authors of these plans undercuts and discourages the main force engaged in the building of our socialist state, i.e., the working class.

The recent period marked by changing perceptions of the way the party should discharge its duties paved the way for us to take the initiative in subscribing to the argument which holds that "the clash of different hues and shades of opinion within the party is unavoidable and essential as long as this does not lead to anarchy and factional splits, as long as this struggle is waged within bounds jointly agreed upon by all comrades and party members."

This is why we expect an effort to be made to create every opportunity for the practical application of this line of reasoning by the mass news media. We consider one of the statements made in this article to be correct, and we also endorse it as giving a proper interpretation to the nature of the struggle being mounted for economic reform by our party: "It is bad enough that these proposals reflect a desire to bring back the old system through the front door. But what is worse is that this amounts to an agitprop campaign urging that this should also be accomplished by resorting to old methods. This is evidence which attests not just to intellectual shortcomings, but also to blindness and deafness. These traits are depressing enough when displayed in private, but they are downright intolerable when displayed by people hiding behind official seals of office."

In stating our position on issues pertaining to the key principles of the economic reform, principles which are summarized under the slogan of the "three S's," we always support these principles by citing the following arguments:

1. The economic reform now being implemented is consistent with the climate of public opinion and public aspirations in the quest for problem-solving measures which tend to promote more efficient performance in the current phase of the development of our socialist economy.

2. The reform is inevitably giving rise to a growing need for the widespread dissemination of the skills required in order to harness our acquired store of theoretical knowledge in practical settings.
3. The reform has initiated a process of individualized, dispersed decisionmaking in the general realm of public affairs, a process in which the decisionmakers are aware of their full accountability before socialist society as a whole.
4. The restoration of the old, centralized methods of running the economy and the establishment of monopolies would amount to a repudiation of the process dedicated to a growth-oriented program of socialist economic management and would downgrade the positive and creative attributes of the individual.
5. The absence in the past of a thorough and sustained effort to follow through with programs designed to bring modifications in the system used to manage the socialist economy into line with changes in social and economic conditions brought about the weakening and eventual breakdown of the continuity of trends promoting our country's economic growth.

[signed] Task Force for Ideological Programs, Ideology Subcommittee, PZPR
District Committee Lodz-Widzew

Editorial note: We take pleasure in noting that included among the many opinions voiced by private citizens speaking out against attempts to scrap the economic reform we also received a letter signed by representatives of one of the organizational units of our party, a party which has, after all, assumed full political responsibility for the total reform of the system for running our economy and state.

CSO: 2600/985

PARIS CLUB TALKS, LINKAGE BETWEEN REFORM SUCCESS, CREDIT RATING

Warsaw ZYCIE WARSZAWY in Polish 30 Apr 84 p 4

[Interview with Zbigniew Karcz, head of the Foreign Department in the Ministry of Finance, by Tadeusz Bednarek: "New Aspects of Poland's Indebtedness"; date and place not specified]

[Text] [Question] The Warsaw talks with representatives of 500 commercial banks about our indebtedness have just ended. You have reached an agreement. What does it signify?

[Answer] It was just another agreement, for the time being of an interim character, reached after three earlier ones. It covers the 1984-87 period. Thus, the entire Polish debt owed to commercial banks has been restructured, that is to say, a considerable part of our payments will be postponed although we still have to pay the interest. Actually, this means lightening our balance of payments, since the date for payment has been postponed by 10 years, with a 5-year grace period, compared with the timetable agreed upon when the money was borrowed in the 1970's.

[Question] Thus, it is just an interim agreement. What next?

[Answer] First of all, we have to settle our accounts with the 500 banks. Later on we are going to sign new agreements with the creditors, fixing new dates of payment. We also have to prepare a new agreement on parallel drawing of new credits by Poland. This will allow us to reduce somewhat the burden on the Polish economy, since for the next 2 years at least our obligations to the banks with which we are going to sign the agreement will be lower than the credits those banks will put at our disposal.

For our economy it is crucial that the proper use be made of this breathing space. There is, after all, nothing to be proud of when payments have to be rescheduled; it is a tough and expensive necessity.

[Question] One can therefore say that the problem of Polish debts owed to the banks has been settled. At the same time Poland is negotiating with the so-called Paris Club. Who does the Paris Club represent, and what are these talks about?

[Answer] The Paris Club is a long-established institution which brings together representatives of governments, major creditors of a given country. Its composition therefore varies in the case of each debtor, and depends on the extent to which his credit obligations have been overdrawn. At present, as far as Poland is concerned, the Paris Club consists of 17 nations. The talks deal with the modes of settling Polish debts guaranteed by governments, or, to be more precise, with fixing new terms for the rescheduled payments.

[Question] Might we assume, therefore, that Poland's creditors, including the United States, have changed their approach to the problems of Polish debts?

[Answer] Yes, you can say that. If the Western nations have now initiated talks with us without any preliminary or political conditions, talks they themselves had broken off in January 1982, it certainly signifies an evolution of their views. One can only regret that we have had to wait no less than 2 years for the victory of reason over political emotions. After all, no one but the debtor and the creditor can solve the debt problem.

[Question] You have mentioned that the talks on refinancing those credits were suspended by the Western states in January 1982. Poland then stopped serving them...

[Answer] I cannot agree with you that once the talks with the Paris Club had been suspended Poland stopped meeting her obligations. We did not repay sanctions imposed against us with sanctions of our own. According to the declarations by the Polish authorities, and conforming to the generally accepted standards of international law, we have continued to meet our obligations. The gradual delay, and finally suspension of our payments in 1982, were directly affected by political decisions of NATO members. When in 1980-82 we were negotiating with the Paris Club on the terms of payment of credits borrowed by Poland, our assumption for the future was based on normal financial and economic relations with our creditors, including, *inter alia*, fresh commercial credits to the tune of \$3-3.5 billion a year. The creditors also shared our view--there was no other way out. But because of the previously mentioned restrictive measures by NATO members, and of other credit-related sanctions, Poland received throughout 1982 less than \$1.5 billion, and we were thus pushed into suspending the servicing of those credits.

[Question] What is Poland's current level of payments owed to the Paris Club?

[Answer] The principal and the delayed payments together amount to \$15 billion.

[Question] Don't you think that, regardless of the chance to negotiate with the Paris Club an agreement to reschedule our payments, or else to restructure our debts, the cost of servicing the credits will in any case exceed--considerably, at that--any surplus we might at present achieve in our trade with those countries? We are also repaying bank credits. How, then, are we going to discharge our debts?

[Answer] That is exactly the problem. Otherwise there would be no need to reschedule the payments. Last year the surplus revenue from services and trade with the so-called second area of payments amounted to just over \$1 billion, while prompt servicing of the interest alone on the Polish debts would require at least \$2.6 billion. Let us keep in mind that, after 10 years of negative balance of payments, 1983 was just the second year in a row when such a surplus was accomplished at all. As long as we have not permanently ensured any surplus of exports over imports in that area, our indebtedness is going to grow even with no fresh credits borrowed. Such is the true situation.

[Question] In that case, would not the resumption of servicing those debts slow down the growth of the Polish economy, and threaten our balance of payments in 1984 and in the following years, as long as the effects of our foreign trade have not yet improved as we would have liked?

[Answer] First of all, no agreement has yet been signed, we are just at the beginning of the road. Second, we are attempting to shape the future agreements in a way which would prevent new tensions in our balance of payments slowing down the development of the Polish economy. But it is not only the form of renegotiated agreements which is going to determine Poland's balance of payments.

During that period the balance will be shaped by three equally important factors: rescheduling of payments due to negotiated agreements, rationalization of imports, and the exporting capacity of the Polish economy.

[Question] Have we achieved by now any specific results in our talks with the Paris Club? Are you, as head of the Polish delegation, satisfied?

[Answer] There can be no talk about results as yet, the negotiations have just begun. After a 2-year intermission, we have just held our second meeting.

[Question] We already know what kind of issues the debtor, in this case Poland, has raised in these talks. But what were our creditors particularly interested in?

[Answer] The creditors would like to know when they are going to get their money back, and what are the safeguards that, once the agreements are duly signed, Poland is not going to repeat its past mistakes. Thus, they would like to know how the new credits might possibly contribute to the increase in real--and not just verbal--growth possibilities of Polish exports, and when all sectors of our economy will become sounder.

In this respect they are most interested in the measures we have undertaken concerning our agricultural and food-processing complex, and whether, as in the past, we are going to squander major parts of our borrowings on food.

[Question] Thus, the restoration of Poland's credibility as a borrower is indissolubly linked to the effects of the economic reform, now being introduced.

[Answer] Certainly. Our creditors are following the implementation of the reform very closely, and during our talks they have been taking into account not only all its positive aspects, but the negative ones as well. Hence, *inter alia*, the many questions concerning the already mentioned Polish agriculture, rationalization in the industrial sector, and reform of Polish foreign trade and the foreign-exchange deductions in the enterprises.

[Question] Has the question of Poland's application for membership in the International Monetary Fund and in the World Bank been touched upon during the talks with the Paris Club?

[Answer] "Touched upon" does not say it all. Poland, like most of our partners in the Paris Club, believes that normalization of our credit relations does not amount just to an agreement on settling our debts. It must also mean that Poland will be treated in the same, or similar, way as all the other countries undergoing payment troubles similar to ours. There is, therefore, no place for blocking our access to IMF, or for any other credit-related sanctions. During the negotiations we have emphasized the issue very strongly. One can hardly imagine any agreement signed with the Paris Club if the other party would apply restrictions which might rule out its implementation by Poland.

[Interviewer] Thank you for the interview.

12485
CSO: 2600/979

BOBROWSKI SUMS UP ADVISORY GROUP REPORTS, EXPLAINS CHANGES

Warsaw ZYCIE GOSPODARCZE in Polish No 18, 29 Apr 84 pp 1, 4

[Interview with Professor Czeslaw Bobrowski, chairman of the Economic Advisory Council, by Karol Szwarc]

[Text] [Question] Professor, in several of our recent issues we published the KRG [Economic Advisory Council] study on foreign trade, inflationary constraints, agriculture, and investments. In your opinion, what is the common idea linking these reports?

[Answer] These reports emphasize the importance of equilibrium. I will not even say that the greatest one directly concerns equilibrium, yet this question appears in all other texts. For example, if we stress exports, then we are initially acting against equilibrium; second, when the exports are transformed into hard currency or imports, we then work to restore it.

The problem of equilibrium appears most clearly in the study on investments. With this material, at least for the first time we have attempted to evaluate investment outlays for inflation, and the consequences of the extensive--how would one say--investment front and structure of inputs for selection.

In reports dealing with agricultural issues, we turn our attention to a matter which is rarely perceptible, and if so, as is apparent from a certain letter to ZYCIE GOSPODARCZE, then it is wrong. Namely, we have noticed that a lack of market equilibrium weakens the production motivation of the farmers. Most likely this does not concern the majority of the farms, yet it does concern the majority of the highly productive farms.

[Question] The statement "give us more materials and we will produce more" is frequently repeated at farm meetings.

[Answer] If the economy were in a position to increase production on demand, then I would subscribe to this formula; however, the economy does have limitations. Although recently it has met its planned deliveries of production goods to the agricultural sector, nevertheless the farmers

like others also need money for current expenses. Therefore market disequilibrium hurts the farmer's relationship with accumulated money. The money does not operate in the same manner as it would have under conditions of equilibrium.

[Question] Therefore, what conclusions can be drawn from these reports?

[Answer] We still have time to present proposals. But one unwritten conclusion is the fact that in reality we have already done something to restore equilibrium, but we are still far from resolving this matter. Perhaps the time has come to make equilibrium a central test of economic policy.

It is not possible to solve the inflation problem without taking into consideration all inflationary factors with the budget, investments, wages, and procurement prices.

[Question] And foreign trade?

[Answer] Yes, inclusive of foreign trade, although this is in reality the least significant factor of the operations which can be fulfilled. Insofar as foreign trade is concerned, were we to receive credit we would be capable of producing more. Under present conditions, however, things can only be done on a marginal level.

I believe that since we have already achieved progress, we can place somewhat more ambitious goals upon ourselves and proceed more consistently. In my opinion, we have not yet exhausted all our available means of fighting for equilibrium. Policy is being polarized toward checking wage increases, although not successfully, and for increasing prices with great resistance. There are areas which are included in this battle. I did not conceal in a recent ZYCIE GOSPODARCZE article (No 51/52, 1983) that the national budget has a large deficit which represents an exceedingly important reason for inflation. Finance ministers in many countries and under many government systems resemble each other. A finance minister likes to guarantee himself a certain maneuverability and protect himself from far-reaching demands, at the same time reconciling himself to the budget deficit so that after half a year he could declare that it had indeed decreased. This represents a classic and aboveboard game which, however, does not counteract inflation.

[Question] A certain dissatisfaction arises after one reads the information presented in our columns. The information gives a certain picture of the economy, but an incomplete one.

[Answer] I realize this; however, despite this we have decided upon this rather than some other presentation of our work, since the completion of the full cycle of our plan will necessitate a little more time.

Information concerning industry is in the developmental stage. During the upcoming period we intend to undertake work in the area of housing construction and policy, and somewhat later matters pertaining to wages and consumption. In about half a year we will evaluate the operation of the new set of reform tools.

We propose to begin analogous work with regard to the private sector, as well as what I call the parallel economy, or semilegal or illegal processes. I do not think, however, that we could manage this if we lacked information and were limited in our ability to carry out studies.

[Question] Professor, I understand that these are difficult reports to work out, and the one who gives quicker gives twofold, but why has the KRG changed the method of presentation of its information?

[Answer] Previous reports were knowingly restricted with respect to subject matter or time period of the evaluation. The reason was that we attempted to prevent our studies from taking on an overly academic character, but instead placed principal emphasis upon specific proposals presented to the authorities. In condensing and restricting the reports we were also concerned with making them available quickly and before the planned decisions were to be undertaken.

I believe that irrespective of the greater or lesser value of our comments and proposals, this method of drafting reports increased the opportunity for their immediate use by the authorities. A negative aspect, however, was the fact that our studies could not always be sufficiently in-depth and naturally left out a significant portion of the important problems. We therefore decided to change our work techniques.

You see, such consultation is very hard work. The KRG is not only tasked with providing the government with proposed alternative solutions, but also with critical reports, as well as the enrichment of thought through the organization of information, disclosure of certain weaknesses in policy, etc. Currently, we are changing our form of dialogue with the authorities and the ministries somewhat. We want to distance ourselves from adopting a position toward the already prepared reports, and to draw closer to a form of common thought concerning them.

It so happens that in our economy we live by "steps." The first of January represents the CPR [central annual plan] date and during the remainder of the year we live so as to carry out the planned tasks. The CPR measure is a good one, but insufficient since deviations from the plan can indicate not that something is not going well, but rather that it was predicted inaccurately. We want to help get rid of the exclusive thinking of annual shunting aside of problems. Even a year and a half ago it was exceedingly difficult to go beyond the realm of 1 year. Currently, we have last year's experiences. Although reality continues to be unclear and differentiated, nonetheless it is possible to organize it in some manner. One can already discuss the beginnings in 1982 and 1983, and

what last year constituted insofar as this year's prognosis is concerned, and even the fact that this year's prognosis allows one to view the near future. The broadening of the horizon is simply impossible in short operational reports.

There is yet another argument which concerns the KRG itself. We are not really keeping up with the pace and scope of the work which we have undertaken. We were too greedy. I consider the biggest shortcoming to be if we were to sacrifice the quality of our work for quick and immediate solutions. All the more so since this is partially the fault of our entire policy and publicity. It is essential to limit the KRG activity front so as to preclude a deterioration in quality. At the last plenum we voted to present the premier with a proposal to change the KRG form of activity somewhat, without changing the KRG statute.

[Question] Excuse me, Professor, but what does this mean?

[Answer] Simply that we will not react to details and trivia. Instead we will concentrate upon selected problems which we have included in the work plan. I presented this to the premier, who understood the purpose and agreed with it.

Inevitable personal consequences also result from this purpose. Namely, the KRG term is expiring this April. We proposed, however, that in order to complete work on next year's plan that we should retain the council makeup so as not to change horses in midstream. This proposal was also adopted.

[Question] Professor, during our discussion last year you predicted that when you turned 80 you would retire from public life.

[Answer] I did not say at the time that I would do this the day after I turned 80. Yet this is not an intention which I intend to abandon. I cannot simply resign. The current KRG method of operation places tasks before me which I cannot fulfill to my complete satisfaction. My friend, the French demographer Alfred Saury, who is a bit older, once told me: "Remember that you can work as long as you want, but you cannot accept obligations which you are unable to accomplish." Even before I turned 80 I began to look for relief. Two years ago I took a 2-week vacation, while last year I took two vacations of 2 weeks each. This year I plan to take four 2-week holidays. I come to work later and leave earlier, and do not come in every day. This represents a degree of retirement. Instead of saying goodbye, I say, "We will be seeing each other less frequently."

[Interviewer] Professor, thank you for the interview.

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CSO: 2600/978

DIRECTIVE-TYPE ALLOCATION SYSTEM CRITICIZED

Warsaw ZYCIE GOSPODARCZE in Polish No 18, 24 Apr 84 p 9

[Article by (M.K.): "Wearing Old Decorations"]

[Text] A sea of ink has been spilled on the subject of the directive-type allocation system; quite a few discussions have raged on this topic. That perhaps is why Dr. L. Balcerowicz's lecture, "The Post-1981 Economic System and the Traditional System," organized by the team for the economic reform at the Main School of Planning and Statistics (SGPiS), in which he focused attention on the directive- and distribution list-based system of economic management that is so strongly rooted in practice and human mentality, did not lead to heated polemics. However, his lecture was attended by many scientific associates and students of the SGPiS as well as by outsiders, who may have been expecting it to be not so much educational as offering a new look at the problems of our economy and stimulating creative reflections--this being the guiding idea of public lectures.

The sole person to take the floor in opposition was S. Czerwinski, a representative of the Bureau of the Government Plenipotentiary for the Economic Reform, who did this in the line of duty. It is difficult to say whether he succeeded in convincing the audience that the currently mandatory system no longer bears the brand of the so-called past periods, of that traditional system. As for the lecturer, he found the argument easy to rebut.

The lecturer criticized severely the slow pace of changes in the central economy-directing bodies, stressing chiefly the fact of the regulation of not so much the number as the scope of their competences. Their broad and, over the years, practically unchanged scope, combined with considerable possibilities for directly influencing the "authorities-oriented" enterprise directors, cause more or less formally exerted pressures to be effective and thus become--wittingly or not, but in reality--a pillar of the directive-type allocation system. This as it were psychologically conditioned process can flourish in the presence of a scarcity of resources, mandatory mediation or explicit regimentation, and it is being reinforced by the renascent--in the form of [enterprise] associations--middle level of management.

No changes are being observed in the organizational structure of enterprises or, on a broader scale, ministries. [Enterprise] self-government, which was to provide an impetus to changes in the economy, has been finding it difficult to

locate a proper niche for itself in accordance with institutional solutions, while enthusiasm [for it] has been suppressed by the course of events.

For the time being, it cannot be said that success has been achieved in breaking up monopoly structures, while the private sector and mixed companies which could have "disintegrated" them continue to be treated with reserve and suspicion. This inhibits the dormant potential for human initiative which, in the speaker's opinion, offers in the present situation the greatest and last chance, as otherwise the combination of unfavorable phenomena could in the best case result in economic stagnation. Changes in the financial system of enterprises, even if relatively deep, will not encourage pro-effectiveness attitudes without changes in the surroundings, in the broadest meaning of the term.

1386
CSO: 2600/977

OFFICIAL AUDIT OF CONSERVATION PROGRAM RESULTS

Warsaw ZYCIE GOSPODARCZE in Polish No 18, 29 Apr 84 p 8

[Article by Krzysztof Fronczak: "How To Save"]

[Text] In the fourth quarter of last year the Supreme Chamber of Control (NIK) audited the work on the preparation and application of the government conservation program--an appendix to the 1983-1985 Three-Year Plan. The audit was extended to 16 ministries, 6 central offices and all province offices. Its findings--the NIK's conclusions--produce so-called mixed feelings. Below are just a few examples.

The work on the conservation programs at certain ministries was marked by bureaucratic formalism and generalized treatment of conservation tasks. Certain tasks adopted in ministerial programs often ensued from work regulations, official instructions and other long-mandatory provisions. For example, the conservation program at the Ministry of Agriculture and Food Management included measures that are part of the yearly duties of branch departments, while in the program of the Ministry of Transportation, as found by the NIK, the tasks assigned to the PKP (Polish State Railroads) ensued from official instructions and other regulations binding for the railroads.

Many ministries did not completely define in their programs the conditions for implementing conservation tasks. For example, the Ministry of the Chemical and Light Industry did not specify the deadline for implementing many particular tasks and their anticipated results--instead, the formula of "successive implementation" was adopted.

The program of the Ministry of Forestry and Wood Industry as well as the programs of the production organizations subordinate to it did not include cost accounting for the purpose of comparing the anticipated cost and effects of discrete conservation duties, and instead they relied on estimates.

Several ministerial conservation programs omitted tasks ensuing from the government document, and sometimes they overlooked known possibilities for procuring or conserving raw materials. For example, the Ministry of the Construction and Building Materials Industry and the Ministry of Communications did not include problems of the utilization of secondary and waste materials in their conservation programs.

The Ministry of Agriculture and Food Management did not include in its program organizational-technical measures to eliminate the years-long instances of poor management in the food industry; this concerns, among other things, the losses and unjustified shortages of raw materials in the food industry that were detected by the NIK's audit. In the opinion of the Supreme Chamber of Control, that ministry did not make adequate allowance for the considerable savings that could be made in agriculture by streamlining the transportation of produce as well as of construction materials for the countryside, and also by managing feedstuffs more efficiently.

The Program of the Ministry of Forestry and Wood Industry did not include tasks to streamline the management of mid-sized timber by, e.g., augmenting its logging and processing into lumber (in recent years less timber in this size has been processed than in the 1970's).

Of the total of 51 emergency tasks specified in the government conservation program, 30 had deadlines that were not quite realistic, because they did not exceed the date of 1 July 1983, although many of these tasks required extensive organizational and technical measures in advance of the regulations. This is chiefly due to absence of consultation with the concerned ministries on certain aspects of the government conservation program. As a consequence, several of these aspects either were not included in the ministerial programs or were regarded as having unrealistic completion deadlines and substantially postponed. For example, in the current activities of the MHiPM [Ministry of Metallurgy and Metalworking Industry], the task "Increasing the Recovery of Worn Control and Measuring Devices for Their Further Utilization by Means of the Regeneration or Recovery of Spare Parts" (by the deadline of 1 January 1984) was considered infeasible owing to both technical and economic reasons. The task "Utilization of Converter Gas by Streamlining the Installed Facilities" (to be implemented by 1 January 1984) was postponed and included in the 1985-1990 long-range program. Part of the task "Increasing the Utilization of Local Fuels by the Population" (by the deadline of 31 May 1983) was postponed to a later date--the ministry still is not manufacturing the needed furnaces.

The program of the Office for the Maritime Economy specifies certain conservation tasks at a level lower than that assumed by the enterprises under its jurisdiction. For example, it specifies at 1,590 million zlotys the savings of fuels and energy, whereas at just four of the 13 shipowning enterprises the related savings are anticipated at 1,833 million zlotys.

Preliminary assessment of the implementation of the conservation programs indicates many inconsistencies and inadequate activism at ministries and central and province offices. The NIK's findings reveal that last year, of the 51 emergency tasks contained in the government program, nine were not undertaken (of these nine, two were regarded by ministries as either infeasible or not pertinent), while the implementation of three more was postponed to subsequent years and one began to be implemented only conditionally.

By the time the NIK carried out its audit (fourth quarter of last year), the implementation of, among others, the emergency task "Conserving Coal and Fuel Oil in Cement Kilns by Using Worn Tires in the Combustion Process" was not undertaken. The MBiPMB (Ministry of the Construction and Building Materials Industry) makes its implementation contingent on assuring the profitability of the use of such a fuel for cement kilns, and especially on obtaining funds to modernize the kilns and assurances of gratis provision of the tires. Late last year the Interministerial Commission assured the fulfillment of these postulates and the task is to be implemented following the modernization.

Certain tasks of the government program were fulfilled only partially. For example, the supplies of local fuels (i.e., firewood, peat and brown coal) to the population (deadline for task completion: 31 May 1983) were augmented to an unsatisfactory extent--to be sure, during the first half of last year, the forestry industry procured 40 percent more of the firewood lying in forests, but it failed to increase as planned the sales of that wood to the population. According to the MHWIU (Ministry of Interior Commerce and Services), this is due to the decline in the market's interest in substitutes for black coal.

But the NIK report also shows brighter sides of the implementation of the government conservation program. For example, the Ministry of Metallurgy has started the production of four kinds of cadmium alloys, resulting in savings of 45 tons of tin during the first three quarters of last year. The Ministry of the Chemical and Light Industry accepted larger quantities of spent lubricants (in an amount that was 12 percent higher during the first 8 months of last year than in 1982--but adequate facilities for regenerating these oils are lacking). As part of its utilization of windbreaks and peat-damaged timber stands, during the first half of last year timber output at the ministry of forestry was 25 percent higher than in a like period in 1982. The Ministry of the Chemical and Light Industry markedly increased its procurements of tires for retreading and inner tubes for regeneration--in construction, the related activities produced about 30 million zlotys in savings.

The data presented above pertain to the findings of the audit of the implementation of tasks of the conservation program by the ministries. The conservation program adopted and implemented by the province offices (to which a large part of the NIK's findings pertains) has been implemented to a similar extent and in no way changes the specific instances given above. It is difficult to reject the basic conclusion ensuing from the reading of the NIK's report, namely, that the implementation of the government conservation program has been generally meeting with considerable resistance and the numerous obstacles it meets are of not only material but also formal nature. Unfortunately, instances of simple tardiness or even failure to understand the ideas of the program are not lacking. This conclusion requires specific counter-measures this year and in the next few years.

AGRICULTURAL PROBLEMS IN MOUNTAINOUS REGIONS DISCUSSED

Warsaw TRYBUNA LUDU in Polish 5 Apr 84 p 3

Article by Henryk Berski: "Will the Sun Shine on the Mountain Pastures?"

Text About 9 percent of the farmland in Poland is mountainous terrain. This amounts to 2 million hectares. It is not very fertile and much more difficult to farm than the lowlands. Natural conditions contribute to this: a short, differentiated growing season, even within the gminas.

There are regions which are reputed to have 100 days of variable weather to the disadvantage of the mountains. Average annual temperatures are also lower and quite variable, and rainfall is more abundant. The work of farmers in mountainous conditions is a constant battle with nature to maintain a thin layer of humus on the slopes. Production costs are also higher on this land.

Specialists calculate "by weight." The result is that production costs in the mountains are on the average 30 percent higher and the yields about 30 percent lower than in the lowlands. One mountain hectare yields, at best, as much as half a hectare in the lowlands. The farmers of Rajcza Gmina are of this opinion, and they add that working toward this requires double the effort.

Mountaineer, Go Back to the Mountain Pastures!

All this results in mountaineers fleeing the mountains, and without regret. It is a paradoxical situation. On the one hand we urge the farmer to use every small piece of land, and on the other the increasing neglect of the mountain economy for many years has caused him to flee from the mountain pastures. In the last 6 years over 60,000 farmers have abandoned their farms in Walbzych Province, and 5 out of 9 villages, which in the 1960's had a total of 128 farms, have disappeared from the map. As a result of worsening working and living conditions, in 1978-80 93,000 people left the mountains. In 49 villages of Jelenia Gora Province, 1,018 farms (30 percent of the total number as of 1970) have dropped out of agricultural production. Thousands of hectares lie fallow. In this case, climatic conditions did the rest.

Things are somewhat different in Beskid Zywiecki, Podhale or in Bieszczady. Here, in spite of everything, the people remain on the land, although small pieces or strips of land are not uncommon. It is another matter that, in only Gmina, south of Zywiec, not a single new farm was started in the last several years. Also, not a single farm is owned by a young farmer. The situation is the same in neighboring Rajcza.

Thus, one must figure that workers are also in short supply here, unless something changes for the better. For it is difficult to survive in the mountains on a 2-hectare farm, and yet the ration cards, as in the lowlands, are not given to those having upwards of a hectare.

Those who remained in the Beskids or Podhale detected a tourism opportunity. Income from servicing "plainsmen" is guaranteed and more certain than toilsome cultivation of the land. But is tourism a gold mine for everyone? For the majority it is a necessity--therefore they try everything: tourism is a second career, if a work establishment is in the vicinity. This guarantees a steady income, although the neglected land, relegated to the background, suffers on account of this. Soil erosion advances very rapidly in the mountains--there is a reason for the saying that even cultivated land "yields stones" washed out from the thin layer of soil by rain and thaws. The mountainsides become rapidly overgrown with weeds and shrubs. Restoring them to agriculture is extremely difficult.

Prospect of Animal Husbandry

Do mountain lands have any prospect of development? They certainly do. However, one can no longer overlook their special characteristics, leaving the farmers face to face with the mountains. It is also not possible to consider mountain gminas according to lowland criteria. For example, not so long ago in Rajcza, and not only there, a plan for grain procurement went into effect. Everyone in the gmina knew this was a paradox, but the provincial plan comes every year, while at the same time the farmers buy grain for their own needs in the best-supplied regions. But if these plans for grain procurement were replaced, after suitable calculations, with plans for slaughter livestock, they would be fulfilled with interest. Milk supplies were greater than planned, and would be still greater if access roads were improved.

The prospect of animal husbandry is not a new discovery for southern mountain gminas. Mountaineers themselves observed it, and the Swiss, among others, put it into practice. Therefore, mountain agriculture in other Alpine and Carpathian nations was permanently oriented toward cattle and sheep breeding and milk production, which inhibited the exodus of farmers from the mountains.

There are also other possibilities, of which fruit-farmers of the Nowy Sacz region are convinced. In a word, one can obtain from the mountains not at all the usual type, but a good sheep's milk cheese. One need only know how to make it.

Everyone Says: We Need Help!

The point is to use these 2 million hectares of mountainous lands skillfully, taking local conditions into account, and give them a chance for development. It may not be said that there is no interest in mountain agriculture. Attempts to create favorable conditions for this agriculture have several decades of history. A quarter-century ago, the Polish Academy of Sciences established the Committee on Mountainous Land Management.

Problems of mountain agriculture have more than once been the topic of interest of the Sejm Commission on Agriculture and Consumer Industry. Unfortunately, the majority of conclusions and postulates were left to gather dust, and storm clouds gathered over the mountains.

A team recently appointed by the Sejm commission, working under the direction of Deputy Tadeusz Maj, after visiting several mountain provinces drew up a report reflecting the chief needs of the mountains. The deputies also used the results of work done by the Agricultural Academy at Provincial Center of Agricultural Progress in Wroclaw.

The next deputies initiative foresaw the creation of an interdepartmental team, whose aim was to draw up a draft law concerning mountain lands. Work on the draft is near completion. It is hoped that the document, for which mountain farmers have been waiting for years, will see the light of day.

Use of the natural conditions of mountains requires the implementation of the principle of compensation for higher production costs, including agricultural labor; strengthening of the system of tax exemptions; a suitable credit policy; regional procurement prices. This may sound like an ultimatum, but the situation warrants it.

The mountain farmers say that they are not concerned about privilege, but about attention to the characteristics of farming on mountain slopes located more than 350 meters above sea level. Therefore, they await the law.

12421
CSB: 2600/937

BLACK MARKET, RETAIL PRICES COMPARED

Warsaw ZYCIE GOSPODARCZE in Polish No 18, 29 Apr 84 P 9

[Article by (Z): "On the Black Market"]

[Text] As ensues from a GUS [Main Office of Statistics] report, in February of this year the average black market prices of manufactured consumer goods in demand were higher by a factor of 1.37 to 2.27 than the average [official] retail prices. The highest indicator, 2.27, pertained to the Fiat 126p: its average retail price in February was 254,300 zlotys, whereas its black-market price was 578,200 zlotys. On the other hand, the lowest indicator, 1.37, pertained to a set of furniture, which cost 76,020 zlotys retail and 103,990 zlotys on the black market. The corresponding prices of other goods were: washing machine, 31,610 and 52,700 zlotys, respectively; compressed-air refrigerator, 25,690 and 39,570 zlotys; black-and-white television set, 21,390 and 30,200 zlotys; multiple-function sewing machine, 19,340 and 30,770 zlotys.

Similar ratios apply to foodstuffs. Of the 10 items considered in the GUS report (pork, beef, bacon, regular and quality vodka, domestic fruit wine, beer, coffee, sugar and chocolate), sugar and chocolate were relatively the most expensive last February, their cost being higher on the black market by a factor of 2.5 than their retail prices. Relatively the smallest differences between black-market and retail prices existed for unboned pork (price ratio 1.22:1), quality vodka (price ratio 1.34:1) and regular vodka (price ratio 1.35:1).

Compared with November of last year, the mean retail prices of these goods (except coffee) have risen. Their black-market prices also rose, with the exception of beer (decline to 53 from 55 zlotys per bottle) and regular vodka (decline to 821 from 834 zlotys per bottle). On the other hand, the mean ratio of black-market prices to retail prices has either decreased somewhat or remained the same (e.g. for domestic fruit wines this ratio was the same--1.68:1--both in November of last year and in February of this year). For coffee, bacon and quality vodka these ratios increased, but only minimally. By contrast, the black-market price of pantyhose stabilized, averaging 257 zlotys per pair both in November and in February. Below are sample average retail and black-market prices, respectively, of certain goods in February of this year: unboned beef, 185 and 263 zlotys per kilogram; pork with bone, 327 and 400 zlotys per kilogram; bacon, 185 and 263 zlotys per kilogram; sugar, 52 and 130 zlotys per kilogram; chocolate, 107 and 267 zlotys per tablet; coffee, 320 and 473 zlotys per dkg; domestic fruit wine, 170 and 286 zlotys per bottle.

DEVELOPMENT OF AIRCRAFT CONSTRUCTION INDUSTRY REVIEWED

Bucharest VIATA STUDENTEASCA in Romanian 25 Apr 84 pp 4-5

[Article by Radu Grigoroiu]

[Text] Reality as Embodiment of the Dream

1903 Traian Vuia, Romanian engineer, builds a flying machine: the car-plane.

1906 With this car-plane, Vuia is the first to successfully take off solely with on-board resources.

1910 Aurel Vlaicu, engineer, builder, and pilot, builds the first airplane entirely designed in Romania, whose performance brings fame to his name and to Romania; it equals and even surpasses the performance of aircraft built in other countries.

During the same year, in the pioneering era of aircraft construction, propeller driven planes can perceive their future; the Romanian engineer Henri Coanda builds the first jet plane in the world, aboard which he makes a premiere flight.

1918 First helicopter with mechanical transmission from engine to propeller, Vuia No 1.

1930 First low-wing fighter plane, built according to the design of Professor Elie Carafoli.

1939 Construction of one of the fastest fighter planes in the world (the fourth fastest at that time), the IAR-30.

This is a brief and obviously incomplete history of aircraft construction in prewar Romania, or better yet, an attempt to present an emerging tradition. A complete history of this world of imagination, courage, devotion, and professional determination, includes along with Romania's unquestionable firsts, many other names and events that represent as many contributions to the development of flying machine construction: Gogu Constantinescu, Henri

August, Gheorghe Ferekide, George Varlan Ghitescu, Ion Paulat, Partenie Crisan, Filip Mihail, George Fericic, Gheorghe Briscu, George Nitescu, Tache Brumarescu, Rodrig Goliescu, Gheorghe Botezatu, Ion Stroiescu, Nicolae Ionescu-Saru, C. N. Gheorghiu, and so on.

This is a history which has continued to deliver the fruits of Romanian creativity during the first decades following the the revolution for national, antifascist, and anti-imperialist liberation. The tenacious and ambitious work that has produced these results was in response to the irresistible call for greater achievements, the continuation of a tradition in a field in which Romanians had demonstrated their unquestionable vocation.

Having reached the contemporary era, this history came to fruition in 1965, like blossoms in springtime, when speaking to the Ninth Congress of the RCP, Nicolae Ceausescu laid the foundations for a revival of Romania's aeronautical industry, which was then at the threshold of full maturity.

In 1968, Henri Coanda's words also began to look at the future as a natural consequence of a great past: "Few nations in the world can take pride in as successful a contribution to the progress of aviation, as the one made by our nation."

Some of the landmarks in this historical growth are the BN-2 Islander, IAR-825, IAR-827, IAR 316 and 330, IS-28M2A, and others, representing planes, helicopters, engines, gliders, and powered gliders. All of them the accomplishments of an industry with exceptional endowments, manned by exceptional people. The highest point on the growth curve (for the time being) is ROMBAC 1-11, a mid-range passenger plane, the most recent and most praised victory of Romanian aircraft builders, which took place in 1982.

It is the history of a leading industry based on a tradition that spans more than eight decades, but that can be considered as young as the men and the resources which build its products. Today it still is the history of young people, yearning for performance, the authors of achievements marked by an enthusiastic and faultless professional conscience, essential to the tradition of the wonderful men who build flying machines.

Radu Manicatide: Airplanes Can Be Built Only by Those in Love With Flight

The voice on the telephone answers my question with "Yes, that's me," and appears to be less suspicious than surprised to find out that the stranger at the other end of the wire is asking for an interview. He actually postpones it for the next day, when I will know whether he can receive me. The next day however, everything is alright, with the name VIATA STUDENTEASCA probably playing a not quite inconsequential role in the acceptance of my visit at the apartment on Strada Stupinei 34.

The owner of the voice is a rather short, thin, lively man, who does not readily show his more than 70 years of age. He is one of the famous men in the history of Romanian aircraft construction. His name is associated with

the IAR (Romanian Aeronautics Industry) plants for better than two and one-half decades, during which he put in the air many planes of domestic design: the M-9 (sports plane), the experimental glider M-10 with its forward stabilizers, the M-11 two-seater powered by a 60 hp engine and with forward stabilizers as well--an original approach in aircraft construction, the MR-2 two-engine plane, the M-12, and a number of IAR planes, the most recent among them being the 823 and 826. For this man, winner of the State Prize and holder of five Orders of the Romanian Socialist Republic, aircraft construction is not only the tension of a flow of ideas, but also the uninterrupted effort of implementing them, of making them viable.

When the young engineer Radu Manicatide was returning from his studies in France early in the 1930's, Romania was already known by the world's aircraft builders and had already created an aircraft industry based of French licenses.

[Question] How was IAR created?

[Answer] From an engine repair department at the Astra plant in Arad. They built and repaired engines. The department developed as time went on, and in collaboration with the French, began to build an aircraft engine, the Gnome, which they improved. The French knew that we could be good aircraft builders, as was subsequently demonstrated when the idea arose and was implemented to build aircraft cells under French license.

[Question] The Gnome engine was thus adopted.

[Answer] I would not put it this way, since it was a different adoption process, which required a careful look, a lot of mental gymnastics to understand everything you saw, a way to procure the necessary technology, and the construction of exact copies. But IAR went further; it studied the engine very attentively, and then said to itself: this would be better in this way, that would be more efficient if mounted like this, and here we should install it like that. A good engine was then turned into a better one, and further improved by the Romanians.

[Question] Were the French satisfied?

[Answer] Of course, it was in their interest as well.

[Question] How was IAR between 1938 and 1940?

[Answer] The aircraft construction industry has always been different from the others. You can see it best today. Simply take a look at the fabrication processes for ROMBAC, and you immediately perceive two problems: technology and manpower. You realize that a plane is not easy to build, that it requires the highest technology as well as workers with a professional consciousness equal to what they produce: machines which fly with humans aboard them. The trade is among the most exacting ones, it admits no errors. In ROMBAC's case, technology and manpower are two trump cards in the advantage of aircraft:

construction. And now to answer your question: the IAR of 1938-1940 represented for its time an industry apart, created out of sacrifices, which brought no shame to the country, on the contrary. I like to say that it was a true academy of engineering, economics, and even research. Aircraft construction amounts to a spirit that lasts. IAR was not only a school for technical education, but one for moral and patriotic education as well. You cannot have one without the other; that is what I have believed and will always believe.

[Question] May I ask you something, not about IAR, but about yourself?

[Answer] If you cannot avoid it.

[Question] You have been retired for awhile.

[Answer] Administratively, yes I have.

[Question] Are you still designing planes?

[Answer] Yes, I still do. I keep them in my desk, but I do.

[Question] Why?

[Answer] A strange question! What do you mean "why"? Because I cannot do otherwise. It has been my life and continues to be so. It's very simple.

[Question] Please forgive me. Let us return to IAR.

[Answer] In 1938-1939 it produced a fighter plane that was very good for its time. The plant continued to produce engines and planes until 1943. After the war, the IAR brand reemerged in 1949.

[Question] That is about when the IAR name and the name of the aircraft builder Radu Manicatide became inseparable.

[Answer] I think so. Working conditions at that time were not at all simple. URMV-Brasov (Flying Equipment Repair Plant) (into which IAR was transformed), had only 25 workers. We had one hangar that we had borrowed from the army's squadron. That is where we carried out our experiments between 1947 and 1950. In March 1949 we unveiled the IAR-811, the first Romanian plane built after the war. Then we designed and built in 1950, the IAR-813, 60 percent metal, completely acrobatic, placed in production immediately after that. About 100 planes of this type were built. In the meantime, the number of workers increased from 25 to 1200, and we were joined by Engineer Ionif Silimon, a great enthusiast, who gradually moved from aircraft repair to the construction of gliders designed by himself, and we established another department for engine repair, headed by engineer Gheorghiu. In 1959 we moved to Bucharest. Until 1973, I built training planes at Baneasa, planes for agriculture, hydroplanes, and so on.

[Question] Who and what helped you maintain the Romanian aircraft industry at a high quality level during this entire period?

[Answer] The workers in the plant and the understanding that we found at the Ministry of Defense and that we received from the state leadership whenever it was needed. The workers loved their trade, and many are still working at it and are among the best. They are the ones who built the planes and gliders; without their help, my designs, as well as those of Sillimon and others would have been merely archives to boast about. And I think that we were also helped by our tenacity: we had a tradition to maintain and develop. ICA-Brasov (Brasov Enterprise for Aircraft Construction) for instance, where the glider production was started, was built at Sillimon's insistence.

[Question] What were the best planes built from your designs during this period?

[Answer] Because they flew, I say that they were all good, but you can mention the IAR 813, 817, and 818, the two-engine MR-2-814, the agricultural planes 822, 826, and 823. They became part of the utility fleet, and they were sold abroad. They performed their duty and are still doing it.

[Question] What does aircraft construction mean?

[Answer] A great deal of thought. And lucidity. Discoveries appear throughout the world and it is absolutely necessary to know them. You improve by improving upon them, and you can contribute something new, something original. Our solid, acknowledged tradition has brought a high proportion of originality to international achievements: Vuia, Vlaicu, Coanda, Carafoli--a great theoretician and who in 1930 introduced the idea of a low wing on fighter planes, an idea which is still used today.

[Question] How does the Romanian aircraft construction industry appear to you now, in 1984?

[Answer] It is greatly different, not only compared to 1938, as you asked me, but even compared to 1969-1970. This industry has progressed enormously in 15-16 years. ROMBAC is the best proof. I watch it, although from some distance now, and I am glad that we, Romanians, can build something like that. This is a progress which must definitely be continued, devoting as much attention as we have devoted until now, in my opinion, to the construction of small utility, sports, and training planes.

[Question] I thank you for the interview. Is there anything you want to say to the students who are learning to become aircraft builders?

[Answer] Let them not forget that they have a trade which cannot be plied as if it were just another skill. It is not an easy craft, it brooks no laziness, no cynicism, no interruptions. A true aircraft builder carries a passion for flight and is an enthusiast whose professional knowledge is among the highest.

About ROMBAC, With Love

Midway in my notes of the discussion I had with engineer Dan Dragoi (structural engineer, 31 years old, graduate of the Aircraft School, class of 1977, currently head of the assembly department at the Bucharest Aircraft Enterprise--IAvB), I find the question "In final analysis, what is a plane?" A question that has been running through my mind, and one that I asked this very young leader of a department whose role is to synthesize, in the secret hope that I would receive a generic--and why not--a somewhat metaphoric answer; after all, you must agree that a plane can lead to metaphor: flight, sky, courage. Except that I find nothing written where I expected an answer. Before speaking with Dan Dragoi (who by the way, is hard to catch--"he's in the plant" was the standard response whenever I looked for him--until I was ready to throw away my notebook and pen) the definitions in answer to my question had been "a plane is a veritable plant," "a plane is a work of art," and "if you're speaking of ROMBAC, it's our child," the latter from a very young engineer. "All of them at the same time," said Dan Dragoi. "Or pick the one you want, they are all equally true. Except that ROMBAC is also a formidable and unexpected opportunity for most of us to become involved in the construction project of such a plane from its actual beginning." (I thus also got my metaphor. All that matters, it would appear, is to be patient.) "How many of us would have imagined in school that they would be working on such a machine? Of course, we all thought we would build a passenger plane, we hoped it, but only in terms of 'wouldn't it be nice', and now our dream has come true: we are involved in building ROMBAC, which represents the greatest transfer of technology in Europe in recent years. It means that all of us here, graduates of the Aerospace School, are doing exactly that: we are building a passenger plane--and not just in any old way, but with a state of the art technology. I would even say that from now on, we Romanians know how and can produce passenger planes."

Dan Dragoi's contact with ROMBAC occurred when he finished school and was assigned to the Bucharest plant. For a time he was a technical engineer. He was next in charge of coordinating the general technology of a technical assembly line, which almost immediately increased his responsibilities. He then became head of the subassemblies department, and eventually leader of the general assembly department. In this function, Dan Dragoi and his team produced the first ROMBAC 1-11, now part of TAROM's fleet under the name YR-BRA, and the second aircraft, the Bn. As for the team, it is called a team not because of its size, which is much greater than suggested by the word, but because of the work spirit that unites these men. I noticed that at ROMBAC everyone speaks well of everyone else. It is not recommended to write an article filled with superlatives (nor could it be done, in Dan Dragoi's opinion), but you have to write what you hear: the men with whom he works, and in general, those who work in the plant, are exceptional people. To begin with, the foremen, without whom nothing would be possible: Alexandru Maracineanu, Niculae Toncu, Stefan Dind, Mihai Radu, and Stelian Purcarea.

"We trust each other because we have worked side by side." Their very young collectives (the average age is below 20 in some of them), have worked in an exemplary fashion. They have completed their projects on time and within specifications. "The plane is a delicate creature and an error of one millimeter can upset months of work," says Dan Dragoi. I next find a list of names which I transcribe as follows: Mihai Andreescu, Bogdan Rusu, Mircea Hurezeanu, Sever Bucur, Bogdan Stefanescu, Viorel Dinulescu, Vasile Iuga, Sergiu Petrescu, Ghiocel Denischiotu--all of them young engineers, the most recent of them from the class of '81. Dan Dragoi speaks of them as great hearted and highly professional men. I think of Radu Manicatide's description of an aircraft builder, and I find that they fully meet this description; the tradition is carried on by these bright former students. Their names are embedded in ROMBAC'S every fiber. And not only their names: when we speak of the first Romanian passenger plane, we also include the names of engineers Mihai Damian (painting), Constantin Bogdan (REAB), Octavian Mocanu (technical quality control), Petre Iliescu (mechanical section), Dan Stana (electrical section), and of all those which space forces me to unfairly condense into "others as well."

"Do you know what was our great success?" Dan Dragoi asked me. "It was that they had faith in us young people from the start. And of course, that they entrusted us with responsibility. A lot of responsibility. And we had to deliver. With a book in our hands, and with an eye on our elders, such as engineers Dumitru Cucu, Mihai Rezeanu, Dan Gezia, Pantelimon Vilceanu (elders, by the way, means about 40 years old), helped by the foremen and workers, we delivered. We had to learn about production. We knew technically what a plane was. But there remained technology and organization. We worked very hard from the start. We were dealing with the country's reputation, our years of schooling, the honor of our teachers, tradition. It was not a game. It wasn't always easy, we spent many nights right here, and days when we never parted from the plane. What could we do? All of it was new: the men, the technology, the plane, and they all had to meet, at all costs, at the point where they would produce the finished product, ROMBAC. And they did meet. It was a bet we won with ourselves, when commander Tapu climbed aboard the first ROMBAC, took off, and announced to the tower that the plane was responding perfectly. When we heard that, we were so moved that it was as if a weight had been lifted from our hearts. ROMBAC is a very safe plane, and we have proven it." (You can judge for yourselves: it is no small matter to see 100,000 parts assembled together in the guise of a passenger plane whose operation is checked on the ground with cross-functional tests, which is the general flight preparation, for the 12-16 hours that these tests require, and then to see the same plane fly without any problems.) "A plane is the fruit of an intensive and constant collective work," Dan Dragoi pointed out on about two occasions. Many speak of his department as the one where ROMBAC is made, but that is not so. ROMBAC is assembled from many portions; if one of these portions is not alright, the entire plane is affected. Here, in the assembly department, the aircraft comes to life, after all its portions have been gathered from the other departments. The plane is clearly the product of a factory.

Dan Dragoi asked me not to conclude without repeating what he and other young aircraft workers have told me: their love for their profession and for work, their tenacity and courage were instilled by their professors. They spent five years of education with V. N. Constantinescu, Petre Augustin, Victor Pimsner, M. M. Nita, M. Blumenfeld, V. Galetusa, and Cornel Berbente. And this I write, feeling that I fulfill more than a reporter's duty.

Among the last notes from my discussion with Dan Dragoi, I find the following: trainees from the IAvB, very good; ROMBAC, more than safe, the wish of every institute student is to work on it (hence also the need for closer integration programs); Romania, the seventh largest producer of passenger planes in the world; and ROMBAC 1-11, a great plane.

Meaning of an Above Eight Average

"Integration?" says Sorin Mitran, fourth year student at the Aircraft School and president of the ASC Council, looking for an answer to my first question. "Integration? Well, if I told you that it is first of all a process, and secondly that it is no process at all, but rather a comprehensive entity, you would be tempted to nod your head in approval and not write anything, and maybe think 'so what's new, I knew that already'. Nevertheless, that is exactly how I must start, because here, participation in production means several things. Among others, a slower adaptation on the part of the students due to the extremely complex technology--which you know soundly and completely only around the fourth year--and of course, due to the very high responsibility in a branch such as the aircraft industry. That does not mean that we limit ourselves to looking: you learn from everything you do. For us, the student years remain primarily a period of most serious theoretical assimilation. You have a great deal to learn in order to be at ease in production, because immediately after finishing school, you must apply that which you learned."

[Question] How does the student practical training method operate?

[Answer] In general, practical training is ongoing at all aircraft production enterprises in the country: Bucharest, Brasov, Bacau, Craiova, and so on. During the early years we devote more study to technology, and in the last years, to problems associated with our diploma projects. Our involvement in practical training increases with the growth of the Romanian aircraft industry. ROMBAC is the best example: for us it is an object of study, as well as a source of new questions which we must answer with all that we have accumulated so far.

[Question] When can it be said about an Aircraft School student that he is a specialist (in matters of structures, or engines, or instruments)?

[Answer] Or in the mechanics of flying machines, or in rockets. The school has five departments. I think that in the fourth year a student becomes a specialist in the bud. That is when he formulates his first specialized projects. In the fifth year he works on his "sanctioning," his diploma project, which includes a research topic in calculating the design of various parts.

[Question] How does student scientific research proceed at your institute?

[Answer] We have research programs whose formulation takes into account that the objective of this activity, aircraft construction, is a field with a long design cycle. Until a solution is implemented, experiments are the primordial aspect. That is why for us, even from the first years, research means first of all experiments, in the school's laboratories and especially in enterprises during practical training periods.

[Question] What are the new contributions of student research?

[Answer] In our case, the newest idea is that of a computing group in fluid applications. I believe that even the concept of "new" must be somewhat reconsidered (and re-explained) when we speak of research in this field, and especially of student research. Here, the fruits of research appear in the development of known structures, which may seem a modest accomplishment, but which is not so in fact. In general, sensational innovations are hard to find in aircraft construction; everything is the result of constant improvements. That is one of the reasons for which aircraft construction remains a field which requires very hard work; it cannot be otherwise. Of course, any profession requires work if it is to be practiced seriously, but here we also need sustained work without interruptions. From this standpoint, our trade is like medicine, where the work is carried out at the same rate. And that is not the only similarity.

[Question] A good comparison.

[Answer] A comparison which our teachers often make. That is why we work very hard in school from the first year to the last, in an atmosphere of unabated professional demands. There are problems of course, everyone does not understand that he must work equally hard, we still lack printed courses and it is not exactly simple when you don't have them, but we have a saying: those who have overall averages above eight are truly and definitively in love with aviation. As far as I am concerned, aircraft construction is one of the most beautiful trades around.

A School for a State of the Art Technology

"We presently have a definitely strong aircraft construction school, of the same standing as the study and design departments of our foreign partners," states Teodor Zamfirescu, director of CNIAR (National Center for the Romanian Aircraft Industry), in an interview. "To support this statement, I can say that we can perform aerodynamic calculations for any type of aircraft using modern research equipment, including a trisonic wind tunnel; calculate, design, and carry out static and flight test programs for fast jet aircraft structures; perform applied mathematical calculations using a large computer; and develop programs for any component and performance for aircraft which we manufacture."

All of these were confirmed by the dean of the Aircraft School, Eng Cornel Berbente (former student--as were other professors in the school--of Prof Elie Carafoli, a matter of pride not only for this teacher, but as I found out, for his students as well) who spoke about the training of the future engineers of the aircraft construction industry, and about the way in which the higher aeronautic education meets the growing demands of this industry.

"The engineers who graduate from our school are indeed capable of adapting to the demands of production as soon as they start. At ROMBAC for instance, as we have been told, the young engineers immediately met the levels required by the manufacturing processes of this complex aircraft. As their teachers, we are pleased by this, but in my opinion we still have to work on making students fully understand the importance of technology. The greatest fascination for them (for the best of them primarily) is aircraft design, which requires thought and solutions, in other words a demonstration of talent and intelligence. As a result, they tend to not quite "overlook" technology, that would be impossible--but rather to leave its problems--increasingly many of them--to generalized solutions. Yet technology covers many aspects, among which the very important ones of working with collectives in which every person's work carries a certain weight and produces a certain result. In order to conceive and achieve a technology in a field such as aircraft construction, in which experiments play such a large role, I believe you need more thinking and more determination than in design. What counts is not only the interest in a new solution (admittedly found after a lot of work), but also the effort, at times even more difficult, to implement it. This is exactly the direction in which we strive to orient all our students, the best ones in particular, showing them that a good technologist is first of all a man who thinks through the aircraft production process itself. In fact, aerospace construction has no place for economies of grey matter. As for us, we find that they are gradually gaining the understanding which this idea deserves. We are speaking about these problems against the background of the soundest possible technical training, acquired under exacting standards. This firmness must be interpreted as an assistance from the professor to the student, in fully understanding all the problems in every study topic. Without it, it would not be possible to achieve a less than abrupt transition from classroom to production. Integration is a very important factor in making this transition possible. We will soon obtain a contract from IAvB to test ROMBAC's instruments and engine controls. Along with the Turbomecanica plant, we participated in programs to improve the performance of engines built under license. Currently, the aviation department, with the help of students, collaborates with the aircraft construction industry to find construction solutions for high aerodynamic performance, for structural strength, for increasing operating life. We are also collaborating on projects to eliminate vibration in moving parts, and to study aeroelastic phenomena. We are in the habit of saying that aircraft construction is a state of the art technology. One of the consequences of this situation is the possibility of transferring technical solutions and even technologies from the aerospace industry to other branches whose development require such solutions. For instance, the Bucharest television tower was tested in the wind tunnel to determine its aeroelastic capabilities, a test which resulted in its protection against vibrations. We have also improved the

aerodynamic characteristics of locomotives manufactured by Electroputere in Craiova, and perfected the air intake system for cooling the engine compartment of these locomotives. One collective in our school has been busy redesigning 1 million cubic meters per hour blowers. All of these are achievements which we can tell you about, and which are part of our contribution to the development of the Romanian school of aerodynamics."

GAD, Or How I Helped Distribute Invention Patents

I don't know (or can't remember) the future which the author of "Ciresari" or would have imagined for the smallest of his protagonists, the marvelous T.c., but something leads me to believe that he would not be at all surprised to learn that Tic is an aircraft engineer and that he works in a constantly active "creation" collective. Because that is exactly what Tic is: a graduate of the Aerospace School for four years, who is part of a group at the Baneasa Aircraft Enterprise named GAD (about which later), and who is named Tic. That is what those in the plant call engineer Constantin Tudor, who greatly resembles the image of our childhood hero: happy, attentively observing what is going on around him, full of ideas. He was a good student (among the first, he laughingly adds) because it is no small matter to seriously hit the books, stay busy with cultural affairs, and produce a play entitled "The Lost Scrap of Paper." To begin from the beginning, we can say that he was driven to aircraft construction by his love of cars. He was extremely interested in building aerodynamic shapes for four-wheeled comets, and gradually shifted his attention to airplanes. He enrolled in the school and began to increasingly like aircraft construction, which by now had become his great love. He is now a structural specialist with more than three years of activity in the plant. What did he learn there? What didn't he learn! He learned first of all that there does exist a difference between theory and practice, no matter what we say, except that it does not appear impassable as you might have been tempted to think, but rather an improvement of theory along the lines of a routine, of a concrete path (thus "routine" in the real sense of the word) which connects that which you learned in school with what you must do in your department. The first thing you learn in the plant, is that in order to know, you go to each each work station, you look, and you never forget what you saw. And then you do it yourself. And thereby hangs a tale. He found out that he could do it after he did it (he is kidding, of course, and wants to make sure I don't take it seriously). The way it happened, is that the department head, who was about five years older than him, assigned him to an area of the shop so that he would solve its problems--production as well as organization. Wasn't he scared by such a task? Yes, he was, but he was also challenged by the pride of having a clear responsibility. So from his standpoint, the method was well chosen; he solved the problems on schedule. He remained in that department for two months. This was followed by three years of SDV planning for ROMBAC (SDV are tools, devices, and controls, a sort of life force without which nothing moves in a technologic system), and then by the GAD period. In the SDV department, he encountered what he calls "special technical problems," raised in ROMBAC's construction by the design of glass fiber parts and devices, by assembly measurements, and by special fabrications (on which he also did the most

work). And during this entire period he learned many new things. In fact, he was well and warmly received at IAvB: a young collective receiving a young man, isn't that how things should be? But what is most important, is that after three years he can say without reservations that the people around here have confidence in you, listen to your ideas, and help you implement them.

And what does GAD mean? He still has not told me! It means the Group for Miscellaneous Implementations, namely Marian Velcea, Sorin Bidiga, Sorin Racovitan, Viorel Burca, Radu Solcan (all of them possibly former Ciresari, young people for whom the discovery of an idea naturally ends up in hours of work for its implementation), and their older companion, Constantin Brindus. GAD has an extraordinary history: Marian Velea had the idea for the first Romanian sailboard, built out of polyester reinforced with glass fiber. His friends liked the idea and they all started designing the board. The enterprise management supported them, and the board was displayed at one of the Romanian booths at TIB '83 (Bucharest International Fair). GAD knew that these boards are in demand throughout the world, and that they are expensive. These are the arguments that eventually brought the board to the fair. Moreover, its performance is far better than that of boards produced in countries with a tradition in this field, such as Italy. (In the meantime, GAD has gathered around me. I am told that we are in its new shop, which is not yet in operation. The place is being painted, touched up, posters of bobsleds, skis and skiers, sailboards, planes, and so on, are being hung. I meet everyone, find out that I was Sorin Racovitan's classmate for a time, and each of them adds to what I heard from Tic.) And then came the surprise: requests started to come in from Colombia, Australia, New Zealand, and so on. (They now want to make a first batch, followed by another in an improved version of the board, and give it to the student camp at Costinesti as model.) From a board to GAD was only one step; from that to the formation of a water sports department at IAvB, managed by GAD, an even smaller one.

GAD does not mean only the feverish pursuit of ideas; it also means a contribution to the integral utilization of production hours, and if we consider it from the commercial standpoint, it also means the guarantee of an aircraft construction plant for these recreational and sports items, not to mention the fact that they bring a good return in exportation. Lastly, GAD represents an open door for any enterprise which needs a special product: GAD and IAvB can produce it, as long as it places a demand on thinking.

GAD has other projects as well. With the help of the management, which has provided it with its working facilities, it has started a veritable idea company: the ULM (ultra-light, motorized) two-seater, multifunctional plane; a competition sled, a bobsled for the national team, with which the specialized federation--which has studied the project--believes the team could win a medal at the Calgary Olympics in 1988; boat carriers for the national olympic team which will compete in Los Angeles. "Our dream," says Tic, "is to build the first 100 percent Romanian passenger plane."

My reporter's luck is with me: the GAD members are receiving from CNIAR their invention patents for the sailboard. Seeing their happiness, I am only sorry that I am not one of them. This is a great moment for my generation peers, today, 20 March 1984. Everybody is congratulating each other, and after having a cigarette with them, I leave Tic and the others to their discussions, because a patent implies a number of sometimes unexpected problems. But I have no reason to doubt that the solutions they will find for them will bear the GAD brand.

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CSO: 2700/196

HAFNER DISCUSSES SLOVENIAN ECONOMIC POSITION, VIEWS

Belgrade **PRIVREDNI PREGLED** in Serbo-Croatian 21-23 Apr 84 pp 1, 10

[Interview with Vinko Hafner, president of the Slovenian Assembly, by Zdravka Cicmirko-Pokrajcic]

[Text] On the basis of its responsibility and its place in the socioeconomic development of the republic and of Yugoslavia, the Slovenian Assembly has always been concerned with the broadest problems of socio-economic development, and especially of the economy.

Thus it was natural that we should ask Vinko Hafner, president of the Slovenian Assembly, to tell us not only about the present state of the Slovenian economy, which is the vital preoccupation of the Assembly, but also about numerous questions that face the Yugoslav self-management society.

Thus the range of the discussion encompasses both the current problems of the Slovenian economy--from production to exports to net income and the living standard, and problems related to the continuing development of our society on a stabilized foundation, all the way to the responsibilities of individuals working in the economy.

The discussion was conducted by **PRIVREDNI PREGLED** editor Zdravka Cicmirko-Pokrajcic.

[Question] What is your estimation of economic trends in Slovenia in the past year?

[Answer] Data on economic trends in the republic during 1983 show that the efforts for stabilization are already bringing some results. Compared to 1982, industrial production has grown by 3.7 percent, exports of goods have increased by 8 percent, with a rise of 16 percent to convertible foreign exchange countries while exports to clearing account countries have fallen by 11 percent. At the same time, total imports have

grown by 11 percent, with a 7 percent increase from convertible foreign exchange countries. Despite that, the extent to which imports are covered by exports has risen, and compared to last year, the balance of payments deficit has been cut by 70 percent. However, because of increases in loans and compensational transactions, convertible foreign exchange income has declined by 3 percent. The old difficulties were still around in 1983. Real personal incomes fell by some 10 percent. Losses in the economy and indebtedness grew, chiefly because of increased interest rates and variations in exchange rates. We still do not have complete figures, but there is no doubt that economy in operations fell and that certain well-known problems that have long been present in the Yugoslav, and naturally in the Slovenian economy as well, have continued to worsen.

[Question] To what degree is the Slovenian economy isolated within its own boundaries, and what is its place in the overall Yugoslav economy?

Damage From Administration

[Answer] Today there is much talk about republic and province economies, but I think [this issue] is of crucial significance for the entire Yugoslav economy. It is of course true that it is intertwined with the republic and province and one can even say opstina, economies. Yet that is not always necessarily in opposition to Yugoslav interests as a whole. The main problem, however, is that the state becomes too involved in economic matters, and instead of building a broadly interconnected Yugoslav economy on the foundations of economic principles and the true interests of associated labor, by its exaggerated meddling the state contributes to the creation of the republic, province and opstina economies. I believe the state goes too far in attempting to prove the isolation of the national economy and its harmfulness, for the most significant questions of our economic development will not be resolved by republic, but rather by federal agencies. The Yugoslav Assembly, the Federal Executive Council, the federal administration, the Yugoslav Economic Chamber, various self-management interest communities, to say nothing of the influence of the National Bank of Yugoslavia, will all have an impact. Thus economic policy and the position of economic entities are designed primarily at the federal level, and those who criticize the national economy should first ask what their own contribution to the weakening of the unified Yugoslav economy has been.

The relatively small Slovenian economy, which includes about 13 percent of all Yugoslav workers, creates some 16 percent of our country's GNP. Precisely because it is small and diversified, it needs to be even more closely integrated into the overall Yugoslav economy and into the international division of labor. The value of exports of goods and services makes up 20 percent of the total social product of Slovenia, while more than one third of Slovenia's total production is sold on the Yugoslav market. Thus in many ways the Slovenian economy is dependent on the overall Yugoslav economy. Naturally, our republic too sees too much administrative interference in economic operations, which reduces the economy's flexibility, restricts the functioning of economic laws and retards the development of self-management relationships.

[Question] You mentioned losses. How many losses did Slovenia have last year?

[Answer] There were several. Like other republics and provinces, Slovenia is burdened by several unwise investments from previous years. These are primarily the investments in the motor vehicle plant at Novo Mesto, the purchase of the West German Kerting firm by Gorenje and investments in the refinery equipment and the construction of the unused oil pipeline at INA-Nafta in Lendava. The IMV auto plant has reduced its losses, but still has to pay back large debts.

There are also other significant losses, such as those of the electric power enterprise in combination with the coal mines. That, however, is the result of overly low prices for energy. A similar situation is found with railroad transportation, where expanded reproduction is now being covered as a whole by contributions from the entire Slovenian economy.

What Is the Reproduction Chain?

[Question] Did Slovenia want to have its own refinery at Lendava in imitation of certain other republics?

[Answer] Lendava is our oldest refinery, with the capacity to process 500,000 tons of oil annually. According to the plan, its new facilities were to enable it to process 2 million tons of crude oil per year. The decision for expansion was made when annual consumption of petroleum derivatives was still increasing. Naturally, we wanted to be sure to be able to provide petroleum derivatives, and we also had export ambitions. Now the situation has changed fundamentally. The old refinery will operate for a few more years, and efforts are being made to find a buyer for the equipment intended for the new refinery. Naturally, such a sale would be at below the acquisition price.

[Question] When the new convertible exchange law and provisions on the possession of foreign exchange was being passed, there was quite a bit of criticism from Slovenia.

[Answer] In fact, there was resistance from the Slovenian economy, as there was from all parts of the Yugoslav economy that are oriented toward exports chiefly to the convertible foreign exchange countries. It is one matter to have convertible foreign exchange at your disposal, and quite another to satisfy joint Yugoslav needs. We advocated a policy that would put foreign exchange at the disposal of those who earned it, together with the partners who have made it possible to produce goods for export, i.e., in the reproduction chain. But this chain is not a general association of enterprises, for economic ties are found in some of our economic groups with technologically identical groups. Finally, the convertible foreign exchange law nevertheless has the basic progressive provisions needed, but now problems have emerged in implementing it,

beginning with the so-called criteria for having convertible currency at one's disposal and ranging to the organization of the overall production chain. I think that this year we must finally discover and perfect the whole complex of our economic relations with foreign countries.

[Question] How much does the Slovenian economy owe to foreign creditors?

[Answer] At the end of 1983, the indebtedness of the Slovenian economy in convertible exchange areas totaled \$1.457 billion, which is 7.7 percent of total Yugoslav indebtedness in the convertible exchange area. If we compare that share with Slovenia's share in the total Yugoslav social product and national income, then it is a rather small portion. Even so, it is a significant burden for us, for in addition to it we must contribute to the repayment of the total Yugoslav indebtedness.

[Question] There are some indications showing that control of the total income of Slovenian associated labor is declining from year to year. What are the reasons for that?

[Answer] That is a very serious question. For a long time, we have been talking about the declining reproduction capacity of our economy, and that means that we are saving off the branch that we are sitting on. The Slovenian economy shares the fate of the overall Yugoslav economy. In 1980, the Slovenian economy still controlled final expenditure of 90 percent of its earned income. Last year, however, that figure had dropped to 85 percent, and this year it will decline further to 77 percent. The decline in disposable income is partially a result of increased expenditures for federation needs, followed by increased foreign debts, and a portion that goes to cover losses or internal cash flow problems.

[Question] What about investments of the Slovenian economy in other parts of Yugoslavia?

[Answer] Those investments follow two channels: the Federal Fund for Insufficiently Developed Regions and direct agreements and self-management ties of organizations of associated labor involving joint investments. Naturally, there are quite a number of problems related to that. They still involve credits as a rule, or purchase and sales relationships. There is a tendency to seek to share both gains and losses through joint investments. The Slovenian economy has concluded agreements with the economies of Vojvodina, Croatia, Kosovo, Bosnia and Herzegovina, Macedonia and Montenegro...

For Sharper Sanctions

[Question] Please tell us about the position of workers from other republics who are working in Slovenia.

[Answer] There are about 100,000 workers from other republics, chiefly Bosnia and Herzegovina, who are employed in Slovenia. That is a significant economic and social question for us. They are largely semi-skilled workers who are chiefly employed in construction, forestry work,

city communications, transportation and the like. Those who have been here a number of years have received permanent housing. There is, however, a large number who, despite the fact that they are permanently employed and formally have the same self-management rights, still feel like hired laborers. Many of them live in dormitories or as subtenants. Slovenia is often criticized for using them as common laborers, or like foreign employers in West European countries, exploiting the added value of their labor. For a certain number of those workers, that is true to some extent. Everything depends, however, on the extent to which those workers are amalgamated into self-management and the overall society. Naturally, much depends on them and on the place from which they come. I must stress that Slovenia sets aside a significant part of its social product for the development of the less developed regions from which those workers come, and to open up new employment possibilities in their home regions.

[Question] How much has real personal income declined in Slovenia in the past several years, and what have been the consequences?

[Answer] In the past 4 years, real personal income in our republic has declined by fully 30 percent, including 1983 when it fell by more than 10 percent. That poses a major economic and social problem. It is true that the overall standard of living has not declined to that extent, for the fall in real personal income has been compensated for at least in part by maintenance of the level of public expenditures, somewhat increased employment, improvements in second job possibilities and agricultural employment. Despite that, it should be said that we have reached a critical juncture in the fall of real personal income, both with regard to the workers' social position and in terms of the decline in material incentives for workers to increase production and be better stewards of social resources. For this year, we anticipate a halt in the fall of real personal income, but current economic trends will make that goal difficult to realize.

[Question] How do the workers react to that?

[Answer] Largely with moderation. I think that workers in Slovenia, as throughout Yugoslavia, understand very well that they must contribute to the stabilization of economic currents by accepting a decline in their real personal income, for previously we spent more than we earned. There is another factor that must also be considered. The worker has come to know self-management, the possibility of his liberation and of a better life. He also knows very well that we are not all equally to blame for the present situation. There are various forms of discontent among the workers. There are even some forms of public demonstrations, work stoppages, and forced meetings, which have increased in number and in worker participation in the past year.

[Question] What is the attitude toward responsibility in Slovenia?

[Answer] The attitude toward responsibility in Slovenia is not markedly different than in other parts of Yugoslavia. Perhaps it is somewhat sharper, because the working class has somewhat more production experience and greater work sophistication, so that the workers are more sensitive to that question. The main problem is that in Yugoslavia we have the matter of individual and collective responsibility very well defined in principle and in legal terms. The sanctions for violations, however, are not so well delineated either legally, materially, morally or politically. As far as certain economic failures in Slovenia are concerned, as far as I know no one has had to pay for losses personally. Neither has anyone been put in jail, although some investigations are still in progress. Nonetheless, many changes in administrative positions have taken place, in the associated labor organizations, as well as in banks and socio-political communities. In addition, all of those personnel are burdened by something much weightier, moral guilt, that cannot be felt outwardly. And that is true punishment!

12131
CSO: 2800/303

ECONOMIC LOSSES WORSE THAN BALANCE SHEETS INDICATE

Zagreb DANAS in Serbo-Croatian 9 Apr 84 pp 9-10

[Article by Tomislav Dumezic]

[Text] Economic losses reported in the final accounts for 1983 totaled 118 billion dinars, while capital accumulation (funds set aside for expanding the material bases of labor and for reserves) amounted to 456 billion. That means that the net reinvestment was 338 billion dinars, much less than the economy paid in interest on loans (396 billion dinars). The poverty of the economy, thus, is clear from these data as from other statistics. The real situation, however, is much worse than that.

The question can be posed as to whether there is any capital accumulation in the economy at all, for balance statistics do not even approach the real picture of the operations of associated labor organizations. Why? First, because there has not been a revaluation of the part of operating funds that are used to cover revolving capital. Last year losses based on that measure (according to EKONOMSKA POLITIKA) amounted to about 600 billion dinars. Secondly, part of the losses are reported as temporary restrictions of negative exchange differences, which in reality are also losses.

Melting of Capital

How did a loss occur from the failure to reevaluate the part of operating capital that serves to cover revolving capital needs? The calculation is simple. All balance statistics are fixed to show that the dinar had the same value at the end of last year as it had at the beginning of the year. Naturally, such a point of departure is absurd when inflation is fluctuating between 30 and 60 percent.

Let us take last year as an example. December 1983 saw inflation of 58 percent in comparison with the same month of 1982. Part of the operating capital used by the economy as revolving capital amounted to 1,030 billion dinars on 1 January 1983. If the real value of that sum had been preserved on 31 December 1983 it would have amounted to about 1,630 billion dinars in the operating capital to cover revolving capital needs. That means that the capital owned by associated labor organizations has in practical terms melted by 600 billion dinars of buying power since the end of 1983. That calculation is

approximately correct, according to statistics of the final accounts on reserves. Nominally, they amounted to 1,361 billion dinars on 1 January 1983, and 2,090 billion dinars on 31 December, an increase of 54 percent. This is exclusively a consequence of devaluing the dinar.

Revaluation of resources is not unknown to the economy. For a number of years, the basic resources of associated labor organizations have been revalued. In so doing, despite the fact that the share of credits in source of basic capital is very large, the total value of revaluation of unallotted values of basic capital is assigned to operating funds. Thus in practical terms, again under the influence of inflation, the debt of associated labor organizations of the economy simply melts away. At the beginning of 1983, the long-term credits for basic capital totaled 1,023 billion dinars. Interest on those credits are largely symbolic (on the average they cover only 20 percent of inflation). That means that on that basis, the economy gains about the same amount it loses because of lost value in the operating capital not compensated by inflation. Those losses are covered by revolving funds.

The damages from such fund transfers are enormous. Every criterion for establishing a rational investment and indebtedness system is lost, as is every interest for rational use of the internal resources of associated labor organizations.

Differences and Interest Rates

Another form of unstated losses are the negative exchange differences that remain on accounts of temporary limiting provisions. Toward the end of 1982, these losses amounted to 135 billion dinars, while the difference between negative and positive exchange rate values was 98 billion dinars (and the negative differences were larger by that amount). Because of accelerated depreciation of the dinar in the past year, the situation has become markedly worse. Restricted negative exchange differences have reached a total of 384 billion dinars and exceeded positive restricted exchange differences by 264 billion. In practical terms, a large part of this total was a loss of the economy.

Significant negative exchange differences will also be reported in the final accounts of the banks. They also will not remain on the books of temporary restrictions, and are in practical terms losses that will burden the economy tomorrow.

Exchange rate differences on convertible foreign exchange accounts of citizens last year amounted to some 400 billion dinars. These appeared chiefly in the balance sheets of the National Bank, so that obviously there is but one means for covering them--through primary money issue. The situation would be different if there were foreign exchange debts corresponding to the foreign exchange savings accounts. The real situation, naturally, is not that way. Resources are generally spent irrevocably (by sales on convertible exchange markets) to pay for imports of raw materials and semifinished goods, equipment and consumer goods. That situation points to

the not insignificant future difficulties that the country will encounter on this basis, which today are hardly mentioned.

Table

The share of permanent and long-term sources is somewhat larger in the developed republics, while it is sharply lower in the least developed. That means that the economy of the insufficiently developed republics and the province of Kosovo will be particularly burdened due to increased interest rates for short-term loans that will take effect this year.

Coverage of Permanent Revolving Capital in 1982

Republic or province	Structure in Percentage		
	From permanent and long-term sources	From short-term sources	From other revolving resources
All Yugoslavia	24.7	52.4	22.9
Bosnia and Hercegovina	13.4	55.9	30.7
Montenegro	3.1	72.6	24.3
Croatia	18.0	60.5	21.5
Macedonia	7.8	51.3	40.9
Slovenia	37.3	44.1	18.6
Serbia proper	32.8	47.0	20.2
Kosovo	10.9	38.5	50.6
Vojvodina	32.1	55.1	12.8

Last year the economy paid out 396 billion dinars in interest. It has been asserted that that is the basic reason for actual reduced capital accumulation of the economy. The true status is diametrically different. On 31 December 1982, the economy was using 3,125 billion dinars worth of credits. From that, it follows that the average interest rate was just 12.7 percent. Since the average amount of credit during the year was actually somewhat less, the real average interest rate was 13.5 to 14 percent. The average inflation rate last year was 40 percent (based on average prices for 1983 compared to 1982 average prices). That means that the interest rate was only enough to cover one-third of inflation. Thus nothing approaching a shift toward the real interest rate was made. Rather, the situation remained exactly as it has been in 1982 or 1981.

This year the situation concerning interest will become even more acute. It has been announced that interest on short-term loans will be more than 50 percent, while interest rates for selective credits (for preparing exports, purchase of agricultural goods and the like) will be about 30 percent. That could lead to a situation where the amount of interest paid by the economy last year would be doubled and the total amount would be about 800 billion dinars. That sort of high growth in interest rates would stem precisely from inflation, which will not be slowed this year. Since the economy continues to lose growing amounts of money on its revolving capital, it is increasingly forced to use short-term bank credit. Precisely for this reason, a doubling of the amount paid in interest is realistic. Does that mean that the economy will make more rational use of its money? Will the turnover of basic resources be accelerated, will every capital surplus on the accounts of associated labor organizations be invested rationally to attain profits or to cover losses in the value of money? Probably there will be no effects in that regard, because all of the fundamental mistakes of the past will continue to be made. That includes the exceptionally low interest rates on all long-term credits and the unregulated manner of placing value on the economy's revolving capital.

Two Kinds of Treatment

The deposits of citizens receive distinctly different treatment in comparison to the deposits of the economy. Despite the fact that we are talking about old deposits used for long-term loans to the economy, where interest rates are sharply lower, new high interest rates will be applied that are to exceed the inflation rate for the year. The question is, who will pay them? At present there seems to be only one answer: The citizens will be paid the difference by primary monetary issue, in the same way that, for a long time, interest rates and exchange rate differences have been compensated on convertible foreign exchange deposits.

When no revaluation is made of deposits to the economy, then there is no interest in their continued existence. They are, however, established by law and social agreements, and therefore they exist. That also holds true for deposits in banks' credit funds, for resources invested in the federal fund for loans to finance more rapid development of insufficiently developed republics and provinces, for republic and province funds for financing more rapid development of undeveloped opstinas, for pooled resources for developing particular activities (such as energy), etc. To cover these losses that no one covers, the economy would have to achieve a major leap in the growth of labor productivity, in more economical use of resources, and in profitable investments. Since no such revolution will occur (at least this year), these losses as well will be written off to inflation. That means that there is no realistic foundation for hope that inflation can be held to the planned 40 percent this year.

Table

Because of high inflation and the fact that part of the operating capital used to cover revolving funds has not been revalued, the economy is still

forced to use short-term bank credits. The shares of permanent and long-term sources for covering permanent revolving capital needs have been decreasing in step with the growth in the rate of inflation.

Coverage of Permanent Revolving Capital Needs

Year	From permanent and long-term sources	From short-term sources	From other revolving sources
1975	43.6	35.6	20.8
1976	60.8	22.4	16.8
1977	52.3	27.2	10.5
1978	41.8	53.8	4.4
1979	29.8	60.4	9.8
1980	28.2	59.4	12.4
1981	23.3	55.8	20.9
1982	24.4	52.5	13.1

The structure would be even more unfavorable if the permanent sources (operating fund) did not include long-term credits for revolving capital needs, which are somewhat increased by the conversion of short-term credits.

The consequences will be unfavorable. The upward pressure on prices will become increasingly strong, while the effectiveness of resource utilization will continue to fall, the decline in real earnings will not be halted, and losses will be greater than capital accumulation. In other words, the inferiority of this manner of organizing production and commerical operations will become more and more pronounced. The positive effects of crisis that the monetary concept calls forth in market economies will be entirely lacking.

Until the associated labor organizations begin to report the value of their properties on the balance sheets, the positive effects of monetary measures cannot be attained. That is the source of the nature of the present attitude of workers at associated labor organizations toward the means of production. Today we already have proposals on the need for revaluing revolving capital resources. They are contained in the Draft Law on Use of Revolving Capital Resources in Associated Labor Oragnizations and in the Proposal for a Law on Establishing and Distributing Total Income and Profit. The proposed solutions, however, are not good, because they begin with a valuation of revolving capital that is in the form of things (valuation of raw material reserves, semifinished goods, small inventory, semifinished products, finished products and goods). Obviously, such valuation cannot be carried out at the expense of the total income of associated labor organizations. The greatest part of such reserves are covered by bank credits, on which interest is paid that in a year's time is to reach the inflation rate. From that it follows that valuation can occur only for the part of an organization's internal operating fund that is used to provide revolving capital.

12131
CSO: 2800/310

PEC ENTREPRENEUR DENIES POSSIBILITY OF PRIVATE ENRICHMENT

Belgrade RAD in Serbo-Croatian 26 Apr 84 p 13

[Letter by Bogoljub Karic: "The Small Economy Threatens No one; Two Points of View"]

[Text] One cannot earn billions only through work, either in the social or in the private sector.

I read everything that is written about the small economy. I read a letter from a worker published a long time ago in RAD--"The Red Flags in Kragujevac of Comrade Lecic"--in which the writer maintained that "private is not socialist." I have become aware of the fact that it is not apparent to many people what the small economy is.

It is becoming more and more apparent that the development of the small economy is necessary for the stable and dynamic development of our economy as a whole. This is possible only as a part of the association of labor and resources on the bases of self-management, the SFRY Constitution and communities of associated labor. One should know that progressive forces exist in our country which will never, not even in thought, permit the restoration of capitalism. It is absurd to think that the small economy threatens socialism, while all the forces of socialism are putting a great deal of effort into the development of the small economy.

The development of the small economy will contribute to economic stabilization, a faster reduction in inflation, a improvement of living standards, as well as to the opening up of employment opportunities for a great number of people with the creation of producer contract organizations of associated labor. Some examples will illustrate this.

If we must wait in line at the clinic while there are a large number of doctors waiting at the employment bureau, why shouldn't they organize themselves in contract organizations of associated labor, or open up clinics in local communities with private resources? Next--our country, two-thirds covered by hilly and mountainous terrain, is intersected by hundreds of streams and rivers large and small. This should make it easy for us to develop mini-hydroelectric power stations and to get cheaper energy as a result. The small economy can contribute a great deal to this project.

I do not want to take up too much space in RAD. I will cite one more example, our example. We four brothers (Sreten, Dragan, Zoran, Bogoljub) and one sister, Olivera (Braca Karic), founded a contract organization of associated labor in 1978 with 6 workers. Today, this contract organization of associated labor employs 120 workers and is one of the largest in Yugoslavia. Over the next 5 years we must become a work organization, and the resources we have invested will be returned to us as the founders, as well as a share of the 50 percent net profit which belongs to the founders.

Perhaps you will think that we have become rich and are now billionaires, but unfortunately I must disappoint you. Earning billions by work is difficult for anyone to do in Yugoslavia, whether in the social sector or the private sector. We earn 15 billion (old) dinars a year in revenue, and get an average personal income of 17,000 dinars a year. Workers obtain regress, fuel, credit for apartment construction, and many other things which they cannot get at many other work organizations.

In spite of all those billions, 400,000 dinars are left to us, as the founders, as well as our personal income, of course.

I do not know if I have been able to correct the view of the small economy, but do not let the private economy (production craftsmen) scare you. Do not compare the cafe owner and innkeepers with production crafts and farming!

Bogoljub Kanc,
Founder, Contract Organization of Associated Labor "Kosovouniverzum"
Dec, Junuz Brjaioli, No 1

9548
CSO: 2800/306

VOJVODINA-ROMANIAN BORDER TRADE

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 16 May 84 p 2

[Article by S. Razic: "Larger and Broader Cooperation"]

[Text] Border cooperation between our country and Romania is rather modest, and it has been reduced exclusively to local border traffic. Even this is not being carried on in the volume planned. It is in the interest of both countries to increase the volume and broaden the structure of local border trade this year and to initiate long-term and higher forms of cooperation between areas involved in local border traffic, and work is being done on precisely this. In 1983 only 53 percent of the planned volume of local border trade took place. Instead of the planned \$8 million, local border trade between Yugoslavia and Romania last year had a total value of \$4.2 million.

There are six organizations from our country registered for local border trade with Romania: two from SAP [Socialist Autonomous Province] Vojvodina and four from Serbia proper. "Tekstil" of Zrenjanin and "Promet" of Vrsac carried on a total visible trade in 1983 with "Merkur" in Bucharest, the only Romanian firm authorized for local border traffic, in the amount of \$2.6 million, while the rest of the organizations accounted for \$1.6 million in both directions.

The structure of local border trade between Vojvodina and Romania last year was favorable. The item with the largest representation in total Vojvodina exports, which were worth \$1.25 million, was carpets (\$1.23 million), for which cotton fabrics and fabrics from synthetic fibers were imported from Romania. An essential problem in this trade is the excessively narrow structure of goods which can be offered by the only Romanian enterprise registered for local border trade.

These are only consumer goods of which there is a surplus on the Romanian market, and they have a higher price than the prices of export goods from Romania, since they are burdened with local commune taxes. The Romanians have promised that local border traffic would be transferred to the jurisdiction of the Foreign Trade Ministry. This means that this year and in coming years goods would be offered for exchange through local border traffic from various branches of the Romanian economy.

Plans for this year target local border traffic between our country and Romania at a total value of \$15 million. Almost fourfold more than took place in 1983. Half of that is exports and half imports. A division has been made between Vojvodina and Serbia on a 50:50 basis, just as in the previous year. Initial results in carrying out higher forms of cooperation are also anticipated this year. That is, it has been agreed that the economies from the border regions would prepare proposals on both sides: concerning specific recommendations and possibilities for establishing long-term forms of border cooperation. The Yugoslavs have done their part, and it now remains for the common economic interests to be established and performance of the first programs to begin.

7045

CSO: 2800/323

FOREIGN TRADE IN AGRICULTURE, FISHING, FORESTRY

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 10 May 84 p 3

[Article by Slobodan Sindolic]

[Text] Figures on the foreign trade of agriculture and fishing and of the timber and lumber industry last year are not yet definitive, but even as they are they allow us to say what sort of tendencies have been recorded. In comparison to the two previous years--1981 and 1982--the following can be said in the briefest outline:

first, over the last 3 years agriculture and fishing have shown a tendency toward a steady drop in the value of imports,

second, this sector of the economy has recorded uneven export results, with a tendency toward growth, and

third, the timber and lumber industry is increasing the value of its exports and diminishing the value of its imports.

Exports

What basic changes have taken place in these sectors over the last 3 years? What is shown by the figures on changes in the structure of foreign trade? In which sectors and branches has there been a growth of exports or a reduction of imports? How have the yields in agriculture from year to year influenced the trend of foreign trade?

The figures of the Federal Bureau of Statistics, based on the calculation of \$1 = 63.40 dinars, show everything that has been achieved in exporting and the kind of results that have been achieved with respect to imports.

Over the past 3 years total exports have recorded a certain stagnation after 1981. That observation is based on more precise data than those which were preliminary and which showed that total exports in 1983 were up about 1 percent over 1982. The most recent figures show that over the past 3 years the value of total exports of agriculture and fishing and of the timber and lumber industry have been as shown in the following table (in millions of dinars).

<u>Sectors</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>
Total exports	646,935	629,126	628,510
Agriculture and fishing	20,852	17,439	27,842
Agricultural production	20,094	16,700	27,280
Field cropping	9,586	7,547	18,539
Fruitgrowing	2,460	2,329	2,611
Grapegrowing	235	519	236
Animal husbandry	7,813	6,305	5,894
Fishing	758	739	562
Timber and lumber industry	3,090	2,669	2,859
Exploitation of the forests	2,729	2,360	2,494

The share of agriculture and fishing in total exports was 3.2 percent in 1981, 2.7 percent in the following year, and 4.4 percent last year. At the same time the share of the timber and lumber industry was appreciably smaller: 0.4 percent, 0.3 percent and 0.4 percent in the respective years.

We should seek the principal reasons why last year the exports of this sector were 62.6 percent greater in value terms than in the year before last in the appreciable growth of exports of commercial corn. That is, 169,000 tons were exported in 1981, 166,000 tons the next year, and last year the record quantity of 1,204,000 tons, valued at 11,237 million dinars. Factors contributing to the growth of exports were the export of lamb and then tobacco, dried prunes and certain other products. One reason why exports were not still greater lies in the fact that export deliveries were smaller than in 1982 for young beef cattle, horses for slaughter, young beef, wine, and so on. A slight growth of exports was recorded in the timber and lumber industry, but the increase was still appreciably smaller than in the 1978-1979 period.

Imports

The uneven movements of exports of agriculture and fishing and of the timber and lumber industry have been accompanied by a pronounced reduction of imports. However, in the structure of the total imports of these sectors there have been movements in different directions, that is, increases and decreases of imports. The table below shows the movements recorded over the last 3 years (in millions of dinars).

<u>Sectors</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>
Total imports	921,054	808,281	770,587
Agriculture and fishing	56,529	53,921	40,324
Agricultural production	55,329	52,476	38,725
Field cropping	28,563	33,795	23,957
Fruitgrowing	16,703	10,053	9,967
Grapegrowing	--	--	--
Animal husbandry	10,063	8,628	4,801
Fishing	1,200	1,445	1,599
Timber and lumber industry	8,213	7,340	5,775
Exploitation of the forests	7,894	7,043	5,547

The total reduction of imports was also accompanied by a reduction of imports of agriculture and fishing. This sector's share in total imports was 6.1 percent in 1981, and then the next year it rose to 6.6 percent, but last year it dropped to 5.2 percent. Incidentally, a drop in the value of imports was recorded between the year before last and last year in all the branches except fishing. There was also a marked reduction of imports in the timber and lumber industry.

The reduction of imports is occurring primarily as a result of reduced imports of wheat, and then cocoa beans, oilcake and oilcake pellets, bananas, and so on. At the same time an increase in the value of imports of fishmeal, soybeans, green cowhides, and so on was recorded between the year before last and last year. Within the timber and lumber industry a particular drop was recorded in imports of softwood lumber, softwood pulpwood, cellulose, and so on.

Expectations for This Year

This year's spring planting program is based on the Long-Range Economic Stabilization Program, which calls for an increase in the production of wheat, corn, sugar beets, sunflowers and meat. If the forecast of the experts come about, then it is quite realistic to anticipate an elimination of imports of wheat and to some extent raw materials for production of vegetable oil. This is one of the basic programs in economic policy since over the last 3 years 1,537,000 tons of wheat were imported at a value of 17,423 million dinars. Last year along, in spite of a harvest of about 5.5 million tons, 348,000 tons were imported at a value of 3,725 million dinars. In the light of the anticipated yields of wheat and industrial crops, it is anticipated that further importation of wheat, raw materials for the production of vegetable oil, and then imports of sugar and certain other farm products and foodstuffs will be eliminated or reduced to a minimum.

Recent conversations in the SFRY Assembly and in economic chambers have shown how utterly unwise it is to export certain agricultural products and then to import them once again at a higher price. It is today being argued more and more that this kind of exporting is not being done anymore, but the most optimum solutions are being sought (foreign exchange compensation, priority for supplying the domestic market, conclusion of contracts in good time, incentive prices, and so on). Last year's exports of commercial corn, which amounted to 1.3 million tons, did bring in an inflow of foreign exchange, but the livestock population was also threatened, since there was not enough livestock feed. This year's foreign trade in farm products and foodstuffs will depend, then, on total production and on the needs of the domestic market. The valuable experience gained last year with the exporting and importing of "the same goods" will presumably make more of an impression this year.

7045
CSO: 2800/323

SERBIAN PLANS FOR INCREASED EMPLOYMENT IN 1984

Belgrade BORBA in Serbo-Croatian 20 Apr 84 p 4

[Article by B. Popovic: "New Work, New Worries"]

[Text] In Serbia proper there is a better chance for the unemployed this year.

Although more people will be employed this year than last, many will have to change their professions because associated labor is looking for specialized workers not to be found among those unemployed.

Belgrade, 19 April--There will be 105,636 workers employed in Serbia this year, not counting those in its Socialist Autonomous Provinces. Of this number, 64,000 should be skilled workers and beginning employees, according to the projections of organizations of associated labor and work communities. The employment of beginning workers will have priority, according to what was said at today's meeting of the Executive Committee of Republic Employment Communities in Serbia. Thus, it is anticipated that jobs will be found for 37,100 beginning workers, 22,300 skilled and highly skilled workers, 8,000 with intermediate specialists training, approximately 5,000 with university level training, and over 1,000 with advanced specialists training. It is anticipated that a greater number of women will be employed (at least in some areas). In Belgrade, for example, it is planned that 16,000 will be employed, and in the region of Sumadija and Pomoravlje approximately 4,000 women will be employed. Thus this year's needs for workers are projected to be in the area of 66,000 and of this number 48,000 women would be employed at some indefinite time as beginning workers.

Although more workers will be employed this year than last--there will be even more beginning workers employed this year compared to last year's record level of 27,000--many data indicate that the problem of productive employment will not be solved. Organizations of associated labor and work communities need 64,000 workers, of which 55,000 must be those whose profession is on the list of those particularly in demand. According to SIZ records, however, one might find only one in four of these jobs filled from the ranks of the unemployed. Needed are 23,700 semiskilled workers in professions which are in short supply, and because there is a shortage of 22,000 of these workers, the unemployed are able to fill only 1 in 14 positions. At the same time, there are 62,000 workers who have nonessential job classifications.

More Jobs for Beginning Workers As Well

It is anticipated that 7,780 unemployed workers will be retrained this year and that over 10,000 will receive specialist training. At the same time, organizations of associated labor have provided for the retraining of 6,500 workers, who are actually a technological surplus.

How then do we reduce the discrepancy between the needs of associated labor and the needs of those who seek jobs? Is there a "remedy" in retraining and in changing one's profession?

Dragoje Maric, secretary of RSIZ for Employment of Serbia, emphasized that the only solution is in the retraining of workers, but members of the Executive Committee were of the opposite opinion.

Branislav Sretenovic, director of production of the Oprema OOHR of the Gosa SOUR from Smederevska Palanka, said that "lighting" courses will not provide us with workers upon whose shoulders the production process will be placed. Because we cannot really get, for example, milling machine operators from technicians. Moreover, this problem can best be solved within the structure of the educational process. The nomenclature of professions in education is, one might say, such that it facilitates the schooling of workers with professions which the economy does not need.

Radomir Nikolic mentioned that we must persist in disclosing work organizations which did not accept beginning workers last year, and we must pressure them to do so. The fines they pay are very small and the problem of unemployment remains unsolved.

"Retraining is a necessary evil, one which does not provide the needed specialist, and one in which much money is invested," stressed Zivojin Jankovic, from the Cable Factory in Svetozareno.

It is certain that the unemployed will not get jobs if the enrollment plans for the next school year are not reduced. A reduction has been planned, however, it has not been respected up to now. To be more precise, the RSIZ of Employment has proposed that there be 10 percent fewer students enrolled in school for the next school year. The Executive Council of Serbia has planned for an 8 percent reduction, and the faculties have anticipated a 7.6 percent decrease in some programs. In Belgrade, the reduction is only 5.6 percent.

If the number of students enrolled remains at the level now anticipated by the faculties, enrollment next year will be the same as this year.

Superfluous

At the beginning of this year, there were 28,000 skilled and highly skilled workers in nonessential occupations on the list of employment communities, and the reported needs for this year number approximately 12,400. Nonessential occupations are most frequent among the unemployed with intermediate

specialists training. The largest shortage according to the needs of associated labor was reported in the area of semiskilled workers, but the shortage in the area of those with intermediate specialists training is, one might say, insignificant. Actually, only about 900 workers over the number of unemployed in the same professions are needed.

9548

CSO: 2800/306

DATA SHOWS REDUCED DEFICIT IN TRADE WITH FRG

Belgrade EKONOMSKA POLITIKA in Serbo-Croatian 16 Apr 84 pp 27-28

[Text] West Germany holds second place in trade with Yugoslavia (behind the USSR). According to data of the Federal Statistical Office, Yugoslav exports to the FRG in 1982 attained 807 million dollars while total imports were worth \$1.624 billion. It is apparent that imports were twice the value of exports, which certainly poses an unattractive picture. The fact that exports to West Germany account for but 8.2 percent of total Yugoslav exports points up the need for much greater efforts with the goal of increasing exports to that country. The share of imports from the FRG in total imports is 13.3 percent.

Comparison with 1982 shows that exports increased by \$87 million, or 12.1 percent, while imports were down by \$234 million, or 12.6 percent.

With regard to the noticeably greater import total compared to total exports, the balance of trade deficit is high, amounting to 817 million, which, however, is less than the deficit for 1982 by \$321 million, or 28.2 percent.

In terms of types of products, the largest shares went to machines, equipment and parts for machine building and the electronics industry, with total value of \$146 million, representing 18.2 percent of total exports to that country. The following survey shows exports by more important categories of goods (with percentage of share of total exports to the FRG):

<u>Type of Product</u>	<u>Exports (\$millions)</u>	<u>Percentage</u>
Chemical Industry Products	53	6.5
Clothing	49	6.1
Wooden Furniture	42	5.2
Shoes	40	5.0
Machines, Equipment and Parts (other than electric)	39	4.8
Motor Vehicle Parts	35	4.3
Domestic Electric Appliances	32	4.0
Electrical Machines, Equipment and Devices	29	3.6
Regular and Special Gasoline	25	3.1
Motors and Parts for Trucks and Buses	16	2.0

[table continued from previous page]

Direct Current Motors and Generators,		
Transformers and Parts	15	1.9
High Voltage Cables and Other Conductors	15	1.9
Aluminum Ore, Plates, Sheets and Strips	15	1.9
Wine	14	1.8
Motor Vehicles Tires	12	1.5
Blankets, Quilts and Spreads	12	1.5
Yarns	11	1.3
Steel	11	1.3
Leather and Hides	10	1.2
Hops	9	1.1
Woven Goods	9	1.1
Unworked Silver	8	1.0
Copper Plate, Tubing and Strips	8	1.0
Other Products	298	36.9
TOTAL	807	100.0

Imports as well are made up most commonly of products of machine building and the electric industries, which account for \$618 million of 38.1 percent of total imports from the FRG. The next table surveys imports by types of goods most highly represented (with percentages of their share in total imports from West Germany):

Type of Goods	Imports (\$millions)	Percentage
Various (nonelectric) machines	205	12.6
Electric machines and appliances	156	9.6
Industrial Chemical Products	147	9.1
Automobiles, Buses, Trucks, Tractors and Spare Parts	120	7.4
Machinery for Processing Metals, Parts and Equipment	81	5.0
Motors for Motor Vehicles and Parts	54	3.3
Plastics	51	3.1
Pumps, Elevators, Compressors and Ventilating Equipment	40	2.5
Fans, Valves, Transmissions and Clutches	34	2.1
Metal Plates	33	2.0
Textile Machines and Equipment	29	1.8
Yarns	24	1.5
Hot and Cold-rolled Strips	22	1.4
Coking Coal	21	1.3
Medicines and Pharmaceutical Products	19	1.2
Bowling Lanes and Parts	19	1.2
Synthetic Rubber	17	1.0
Knitted Goods	17	1.0
Pipes and Pipefitting Parts	15	0.9
Other Products	520	32.0
TOTAL	1,624	100.0

During the past 5 years, trade with the FRG has tended toward increasing exports (with the exception of 1982) and constant decline of imports. These trends are apparent from the data for 1979-1983:

EXPORTS

Year	\$ Millions	Share of Total Exports
1979	739	10.9
1980	778	8.7
1981	867	7.9
1982	720	7.3
1983	807	8.2

IMPORTS

Year	\$ Millions	Share of Total Imports
1979	2,887	20.6
1980	2,500	16.6
1981	2,443	15.5
1982	1,858	14.6
1983	1,624	13.3

The data in the above survey show that total trade in goods with West Germany in the past 5 years amounted to \$15,223 billion, of which \$3,911 billion or 8.4 percent was for exports from Yugoslavia, while imports accounted for the remaining \$11,312 billion, or 16.2 percent of total imports.

In other terms, in comparison with 1978 when exports amounted to \$472 million and imports totaled \$1,801 billion, exports for the past 5 years have increased by \$335 million, or 71 percent, while imports have been cut by \$177 million, or 9.8 percent. Yet despite the growth achieved in exports, it must be borne in mind that further increases in exports to West Germany are still possible.

As is well known, Yugoslavia has a chronic deficit in its trade with the FRG, as is borne out by the following data for the past 5 years:

DEFICIT

Year	\$ Million	Share of total deficit
1979	2,148	29.7
1980	1,722	28.3
1981	1,576	32.4
1982	1,138	40.3
1983	8.7	36.5

The total deficit in the period under consideration amounted to 7.401 billion dollars, but regarded on a yearly basis, a constant decline in deficits has occurred.

DISCREPANCIES BETWEEN SALARIES, OPERATION DISCUSSED

Belgrade EKONOMSKA POLITIKA in Serbo-Croatian 23 Apr 84 pp 17-19

[Text] Final data from last year indicate that both the distribution of capital and the trends in average personal income were in a chaotic state. The published capital accumulation (in real terms there was none) is located primarily in several privileged activities, and in these personal incomes as a rule are also high. There are also opposite examples. Those activities that do not have capital accumulation even on paper (where losses reported are larger than the funds set aside for expanding the material base), such as the electric power industry and production of petroleum derivatives, pay personal incomes that markedly exceed the average of the Yugoslav economy. This indicates that the associated labor organizations lack rational goals and motives for economic operations.

How can it be that employees of the electric power industry, which had a net loss of 2.5 percent in its operating fund, are paid salaries that exceed the industry average by 24 percent? The same question could be asked of those employed in production of petroleum derivatives. There too, reported losses exceed capital accumulation with a net loss per 100 dinars in the operating fund amounting to 42 dinars. Despite these high losses, the industry pays average salaries that exceed the average Yugoslav salary by 36 percent. These two industrial activities are not isolated examples. The situation in income distribution is even more absurd when we focus on groups and individual associated labor organizations. Let us return to our first example. The answer to the problem in the electric power industry can be found largely in inadequate prices, but this is not the only reason. We should not forget that the electric power industry enjoys important privileges in investment financing. This is chiefly a matter of obligatory long-term capital pooling and transfer of accumulated capital from other branches of the economy into the electric power branch, because inflation melts away the pooled resources, while the obligation for returning capital nominally remains at the same level.

The causes for such a distribution in the petroleum derivatives industry, other than inadequate prices, can be found in the strikingly low level of facilities utilization, unfavorable short-term debt abroad for oil imports, the impact of the worsening exchange rate and variations in that rate, etc. From these factors it can be concluded that the employees are not to blame for the losses recorded in this economic branch. Sociopolitical communities decided to build the refineries. Sociopolitical communities also set the refinery prices and they decide on crude oil imports. The state controls the dinar exchange rate policy and decides on sales conditions on the domestic market. If these arguments are accepted, however, they can also be extended to other economic activities. Following the same logic, it can be said that the employees of foreign trade organizations are not deserving when this activity realized a 22 percent net capital accumulation per 100 dinars of operating funds, nor are they deserving of personal incomes that surpass the average for the Yugoslav economy by 57 percent. Naturally, the same arguments could be used for those employed in oil and gas production, pipeline shipping and many other activities.

The high capital accumulation and high personal incomes of those employed in foreign trade certainly are not the results of effective and profitable foreign trade. Do we really need 40,000 workers employed in foreign trade for its present volume and quality of exports and imports? Naturally, production organizations working in this branch have a similar number of employees. At question are privileges established by the state that give the foreign trade organizations an exclusive monopoly in handling exports and imports.

Why the Degradation of Self-Management?

From these examples it could be concluded that on the whole, workers are not very guilty for the results that have been reported on last year's final accounts. If someone were to be responsible for results, then he would have to have a degree of independence. In the first place, it is a question of the independent approval of investment decisions. It is obvious that this first condition has not been fulfilled. For every major investment, it is not the nominal investors who make the decisions, but the sociopolitical community. Another form of independence is found in setting prices for one's own products and services in accordance with market conditions. But there is no market in Yugoslavia, and in practical terms the prices are set by agencies of sociopolitical communities. The procedures and conditions for foreign trade are also set by the state. Thus it established a legal monopoly of foreign trade organizations for individual areas, for individual production groups, for individual markets. The state has also taken on the task of being concerned for loss of value of property of associated labor organizations. A large part of the capital accumulation of the associated labor organizations have been subjected to forced pooling into various funds that are intended to cover losses--for investments in electric power installations, for providing credits

for the developing of undeveloped opstinas, and the like. The associated labor organizations are not compensated by inflation for the lost value of part of the operating funds that are used to cover revolving funds, so that increasingly the economy is dependent on banks and the state.

Under circumstances where Yugoslav associated labor organizations have no independence in those domains, it is difficult to demand responsibility of them. Under these conditions, rational goals and motives for operations of associated labor organizations are also impossible, and when there are no rational goals and motives for operations, the overall result of the country's economy must be far below optimum. The associated labor organizations are not able to undertake internal measures that would bring significant savings. For example, although production of certain articles has been cut back sharply because of lack of imported materials, or in some cases production has been stopped entirely, the number of employees in those associated labor organizations cannot be adjusted to fit the new volume of work. When there are no built-in rational economic goals and motives for economic operations, the associated labor organizations are given political assignments that depend on the daily needs of the state. Exporting labor in order to earn convertible foreign exchange is still a crucial priority. The political assignment is carried out somehow or other, for the position of the administrative agency in both the labor organizations and in society depends on the evaluation of representatives of sociopolitical communities and sociopolitical organizations. The real economic effects are quite striking. Profitable production does not develop, strikingly low export prices are set, goods that are in short supply on domestic markets are nonetheless exported resulting in multiplied economic damage. Obtaining convertible foreign exchange is not an irrational goal. The problem lies only in the fact that by measures of economic policy, the associated labor organizations need to be interested in attaining that goal.

The question arises as to whether the material effects recorded by the economy as reflected in last year's balances can be attributed to the self-management system. The reply must be negative, for not even the most fundamental preconditions exist for the least effective functioning of any sort of economic system.

Traditions and Monopolies

Differences in the level of net income per worker recorded for individual economic activities are rather large. That is understandable, and such differences exist in the economies of every other country as well. In the first place, they depend on the organic composition of resources in individual activities or the degree of "capital intensity." It is normal that for the sake of an approximate equalization of profitability, income per worker in capital-intensive activities should be markedly higher in comparison to those in labor-intensive activities. In the Yugoslav economy, the differences are not a consequence of this principle. In general, the relationship toward resources has not been determined, and that in fact determines the overall results of economic operations.

The electric power industry is an exceptionally capital-intensive activity. Pure income per worker in the electric power industry of the country is only 8 percent higher than the average for the entire economy. In foreign trade, for example, net income per worker is 195 percent above the average. The highest net income per worker is found in production of oil and gas, where it is 689 percent of the average. The question is: To what extent is this effect a consequence of efficient operation, privileges in primary distribution, and to what degree does it reflect the lack of a normal system and taxing policy? It is hard to answer that question.

Per Worker Effectiveness of Operations

Index for entire economy = 100

Activity	Net Income per Worker	Personal Income
Entire economy	100	100
Industry	102	101
Electric power industry	108	124
Coal production	112	131
Oil and gas production	789	146
Petroleum derivative production	195	136
Ferrous metallurgy	116	112
Nonferrous metal production	140	119
Metal processing activities	104	104
Machine building	121	113
Production of electrical machines and appliances	106	103
Chemical product production	101	110
Textile and knitted goods production	99	91
Production of finished clothing	93	87
Leather shoe and other leather goods	96	91
Processed food production	95	99
Agriculture and Fishing	114	101
Construction	80	90
Transportation and Communication	90	106
Commerce	114	101
Retail	86	91
Wholesale	128	109
Foreign trade	295	157
Inkeeping and Tourism	80	89
Craftsmen	93	105
Housing and Communal Activities	81	95
Financial and Other Services	156	131

In foreign trade, the average personal income per worker is 57 percent above the average for the entire economy. We also know the overall effectiveness of Yugoslav foreign trade, and we know the monopoly position of these organizations that is protected by law.

The obviously unprofitable activities such as the electric power industry and production of petroleum derivatives also pay above average personal wages. In these instances, tradition plays a significant role. These activities have accumulated capital (even though they have never been particularly profitable), so that income per worker in them has been strikingly high. We know that the policy for distributing personal income has been based on a single principle, that activities and organization that realize higher income per worker pay personal incomes that are higher than average. The profitability of resources, naturally, is not taken into account. Today that situation has changed. These activities continue to be unprofitable, but now they are not accumulating capital either. Yet personal incomes still are not reduced.

Activity	Capital Accumulation and Profitability		in billion dinars				Net ³ Profitability
	Income	Capital Accumulation	Losses	Net ¹ Accumulation	Gross ² Accumulation		
Entire Economy	396	356	118	238	634	4.4	
Industry and Mining	241	188	93	95	336	3.6	
Electric power	16	6.6	19.3	-13.3	3.7	-2.3	
Coal production	2.5	2.9	3.5	-0.6	1.9	-1.2	
Oil and gas production	0.3	10.6	--	10.6	10.9	20.8	
Petroleum derivative production	14	3.5	17.4	-13.9	0.1	-42.1	
Ferrous metallurgy	12	5.0	3.8	1.2	13.2	0.8	
Nonferrous metal production	6.9	1.6	--	1.6	8.5	3.0	
Metal processing activities	18.9	21.1	3.7	17.4	36.3	9.6	
Machine building	14.6	13.7	0.8	12.9	27.5	13.9	
Electric machine and appliance production	17.3	12.0	5.9	6.1	23.4	5.8	
Chemical product production	11.7	3.2	9.8	-6.6	5.1	-7.3	
Textiles and knit goods	5.7	10.7	0.2	10.5	16.2	11.7	
Ready-to-wear clothing	8.3	16.9	0.2	16.7	25.0	17.0	
Leather shoes and other leather goods	4.0	3.4	0.0	3.4	7.4	11.0	
Processed food production	25.3	11.2	6.2	5.0	30.3	2.3	
Agriculture and Fishing	27.2	28.0	2.8	25.2	52.4	5.2	
Construction	14.4	25.5	7.8	17.7	32.1	6.9	
Transportation and Communications	19.9	14.8	5.9	8.9	28.8	1.5	
Commerce	73.9	60.7	2.6	58.1	132.0	12.0	
Retail	19.4	16.6	0.8	15.8	35.2	7.1	

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Wholesale	44.8	22.9	1.6	21.3	66.1	12.0
Foreign trade	9.7	21.1	0.2	20.9	30.6	22.0
Innkeeping and Tourism	5.0	8.0	1.5	6.5	11.5	2.8
Craftsmen	4.0	6.1	1.2	4.9	8.9	5.7
Housing and Communal Activities	3.3	3.0	2.2	0.8	4.2	0.3
Financial and Other Services	6.4	16.9	--	16.9	23.3	15.1

¹Net capital accumulation is the difference between capital designated for expanding the material base and reported current losses.

²Gross capital accumulation is net accumulation plus income.

³Net profitability is the relation of net accumulation to the state of the operating fund.

Data show that there is no rational goal for the operations of associated labor organizations. There should be but a single goal, to increase the personal income of employees constantly; this goal would presuppose maximization of profitability and national placement of capital accumulation. Naturally, it is not sufficient simply to declare such a goal. It must be subordinated to measures of the economic system and measures of economic policy. Besides the freedom of economic entities in the domains we have already mentioned, an agreement should also be reached on equalizing the calculation of personal incomes on the basis of the complexity, difficulty and conditions of employment. Instilling the motive that capital resources should return a certain amount of value, along with equalized calculation of the basis of personal income, should contribute to the formation of normal prices for products and services. In any case, these are the basic principles upon which the world prices, which we assert we want to introduce on our market, are formed. And a market without motives or responsibility of economic entities cannot in practical terms exist.

12131
CSO: 2800/318

AGRICULTURAL INVESTMENT POLICY REVIEWED

Belgrade EKONOMSKA POLITIKA in Serbo-Croatian 9 Apr 84 pp 21-23

[Article: "Great Small Investments"]

[Text] In the Long-Range Program for the Development of Production in the Agricultural Industry, which is a part of the Long-Range Program of Economic Stabilization, there is a requirement that a portion of the total production investments be "guaranteed" for investment in primary agricultural production which corresponds to its share in the creation of social product of the total economy. In 1982, an extraordinarily productive year in agriculture but "stagnant" for the economy as a whole, the portion of social product for agriculture in total amounted to 14.5 percent, but the aforementioned requirement in regard to its share in total investments was fixed at a level of "at least 13 percent." In perspective, it has been noted that this relative proportion ought to go down with the development of the total economy.

One can see from the table that agricultural investments had their highest share ever in total economic investments back in the period 1957-1961, and that over the last two decades these investments have been in a steady decline. But in the period 1977-79, they reached a level of 17.6 percent of the social product of agricultural itself. On the other hand, investments in the food industry were at a significantly higher level (29.7 percent of its social product in 1981), and during some periods this activity was among the most dynamic in the whole economy as far as investments were concerned. This disparity has been maintained for two whole decades, in spite of a successive carry over, from one intermediate planning period to another, of the same requirement that it at least be reduced, but not reversed, in accordance with the ever greater significance agriculture has acquired and the great possibilities for its development which have been recognized for a long time.

However, the requirement from the development program for agricultural industry production, apart from the "corrections" of the long-standing "neglect of agriculture," (and with this neglect, the unequal position of broad categories of the population), has broader significance as well. This is the consideration of the rule (some would prefer to say "law") which has been observed for some time, of the interdependence of agricultural production development and the total development of a given country, measured by the share of agriculture in the total social product--first measured directly, and then by its contribution to the formation of the total social product in the manufacturing industry as well as in industry which "works for agriculture" (machine industry, chemical industry, construction industry, and more recently, even the nonmetal industry, etc.). This cumulative share of the agrarian sector in the creation of social product in the Yugoslav economy amounts to a level of approximately 50 percent today, while in industrially developed countries with an agrarian base (even those like the United States and Canada), it exceeds 65 and 70 percent, with strong tendency to move further up. In order to achieve growth for the social product and total economic development, a constant development of the base of this development is therefore needed, that is, development of primary agricultural production, even though its direct share in social product is declining in a relative sense, together with the agricultural population.

In this sense, it would be difficult to quarrel with the requirement that a certain disparity between investments in the agrarian raw material base and the other sectors which grow upon it be maintained, or with the "principle of analogy," in agreement with its share in the social product. Misunderstandings arise, however, when it comes to the application of these requirements and of the analogy, primarily over the ways and means of "guaranteeing" the necessary proportions, all the way up to their mechanical confirmation and making their significance for the development of production absolute.

Calling on History

Dilemmas in connection with this begin right with the temporal congruity of the "golden age" of postwar agricultural investment, and the first "great green revolution" of the 1950's and early 1960's. Undoubtedly a strong connection existed between the growth of agricultural investments to a level of 15 percent of total investments in the economy on the one hand, and increased yields (for example, the yield of wheat from 0.92 ton per hectare in 1952 to 1.65 tons per hectare, the yield of corn from 0.64 ton per hectare to 2.15 tons per hectare, and so on). However, it is worth noting that this growth was achieved on a very low level of yield to begin with, that to a large extent it was the result of the introduction of new varieties of grain (for example, the Italian variety of soft wheat) which by itself alone did not demand a large investment. One should not lose sight of the psychological and political factor either, such as the conditions which existed--this was a period of restoration of the market for agricultural goods, a time of respite for the broadest categories

of farmers after the abandonment of the administrative purchase and distribution in agriculture which was also widely expressed in "the enthusiasm of cooperation" between the agricultural organizations and village dwellers, etc. However, even though investment in agriculture remained relatively dynamic all the way up to the second half of the following decade, this enthusiasm visibly waned. On the other hand, the increase in yields continued even after 1965, despite the decline in the ratio of investment in agriculture.

Table

Investments in Agriculture

Indicator	1957- 1961	1967- 1971	1972- 1976	1977- 1979
Investment in agriculture (as % of social product of agriculture)				
Total	19.1	11.1	12.3	17.6
-social	129.0	33.1	25.9	33.5
-private	3.6	4.9	7.9	12.2
Investment in agriculture (as % of total investments)				
Total	14.9	6.2	6.4	5.8
-social	10.5	4.4	3.3	2.8
-private	4.4	2.5	3.1	3.0
Structure of investment in agriculture (total = 100)				
-social	70.0	66.0	52.0	48.0
-private	30.0	34.0	48.0	52.0

It is understood that this information is not cited in order to dispute the correlation between the dynamics of investment activity and the growth of primary agricultural production, but only to point to the groundlessness of thinking that the importance of high investment levels for such development is absolute. All discussions on the problems of agricultural development begin with statements concerning its "unfavorable position," but with regard to the lack of correspondence of price relations, the lack of privilege in credit-monetary policy, and so on, and not with regard to the nonexistence of a market for agricultural goods, a unified market for the whole area of the country, as a basic condition for an economically equal position of agriculture compared to other activities, and as the base for relationships in the agrarian sector.

Therefore, these discussions also stick to repeating demands that production in this or that area be "stimulated," that the "profitability" of agriculture be increased, that "additional accumulation" for investment be guaranteed, etc.

There are many arguments for this, as has been indicated. However, it is worthwhile confirming from past experience that increased investment in agriculture alone is not a decisive factor in the satisfactory development of production. It is understood that in question here are total economic and social conditions under which one operates in agriculture, and which determine together the manner of "accumulating," and the character of investing, and even the relationship to investments.

Transmissions Instead of Markets

Agriculture is not an activity which can be successfully developed through market relations and prices alone. The construction of land-reclamation systems, transport networks, the ordering of plots, etc., are here, as with the whole infrastructure, an area for social investment policy, even for government activity to direct and encourage such projects in a direct manner with the appropriate measures and with its resources. In the practice of agrarian policies in the world, this also refers to some forms of production, to the opening of networks and areas for distribution, and even to products for which the state and the community find social, human, and economic purposes. However, these measures can have lasting economic effect only as an additional element of stimulation, they "supplement" those forms of inducements and motivations which producers get from the market. If these stimulants and conditions fail to come to them, measures of economic policy in the area of encouraging production and even directly "guaranteeing" cannot provide satisfactory economic effects.

The policy of "cheap agriculture" in order to "preserve the standard" of the population, or to maintain "social equilibrium" between village and city, etc., has confirmed this for a long time. The policy of "cheap food" at the same time also means the necessity of compensation to producers for what was withheld from them in accordance with the regulated producer-sales (purchase) price for the sake of supplying cities, industry, tourism. This automatically "frees" the producers of the concern for reproduction as well, and investing in agriculture as a whole is narrowed to a social-political act. It is all the same, whether it is on the part of the narrower political community in a direct manner, or in a coordination of policy with the neighboring, or the larger community, in the form of interregional-interrepublic contracts concerning community investments or production "for a known buyer" etc., the organization of production and investment (distribution) becomes the concern of state organs.

The first part of the job, collecting money by means of taxes, redistribution in the economy, or by printing it, foreign indebtedness, appears to be easy. Investing this money on the part of the state--because it

is the real investor--requires mechanisms and transmissions between the government and the economy--the agricultural organizations and the farmers. Concerning agricultural organizations, these include social funds ("green plans", sources of unreturnable resources, funds for the advancement of individual activities, like the export of grain, livestock, manufactured products, funds for stimulating economically underdeveloped regions, then business banks, councils, cooperative alliances). With regard to individual farmers, however, social agricultural, and food industry organizations themselves perform this role; they are the "bearers" of the programs, and as a rule the only organizers of the "advancement of agriculture," of a region, that is, of the farmers themselves and their work as a whole. In this role, organizations of associated labor in agriculture (combines, cooperatives, and food industry) are not only deprived of their own economic motives and criteria in investing, but they are also in a position to use the same noneconomic, social and political measures with regard to farmers which were imposed upon them, and to put into effect the direct instructions of their state organs in the distribution of investment resources.

A Gift As Dead Weight

It is understandable that out of this method of gathering "additional accumulation" (which actually makes up the predominant share of total investments in agriculture) also originates an irresponsible (not only in the notorious political sense, but also in the economic sense) relationship to these resources, already apparent in distribution difficulties. From a Belgrade cooperative alliance comes information that over the last year approximately 60 percent of the 910,480,000 dinars available from the "green plan" of bankers' funds and from a loan from the International Bank for Reconstruction and Development remained unused because farmers were "late with their requests as a rule," and Beobank approval of loans did not conform to the seasonal needs of farmers. At the same time, in Sapac the "final proceedings" of the Coordinating Committee for monitoring the realization of the "green plan" rejected a request of the local Cattle-Breeding-Veterinary Center and Slaughterhouse for approval, of a loan for one of their cooperative members (with its own participation)--an individual farmer, and returnee from working abroad--a loan for 18.5 million dinars over a 1½ years for the construction of a chicken farm with 20,000 hens and with a production of 4.5 million eggs a year, with the explanation that this was "too large a sum of public money for one private farm."

The relationship of the state to the spending of public money for the construction of infrastructure projects, or to investments in "expanding the social sector" of agriculture, as sectors under its direct influence regarding production according to criteria of "self-satisfaction" of its "needs", however, is completely different. In the Kosovo Economic Council it was just stated that regarding the great irrigation system Ibar-Lepenac, with almost 10 years of financing from loans from the International

Bank and domestic sources, a system whose sections Ibar and Radonjic had just been finished and which will enable approximately 25,000 hectares to be irrigated this year, there was "no interest" among farmers in their using it! Absent, however, have been all preliminary preparations for using it, such as jamming the fields and other things in which the initiative of opstina and provincial organs were crucial. It is understandable that under these circumstances the farmers remain "uninterested" in using the system, which might help them to triple their harvest.

Collectives of social agricultural organizations don't feel much differently towards the expansion of the public farms themselves, expecting that this will be implemented exclusively by purchasing land from villagers, and this by using separate and nonreturnable social resources. To be more precise, these investments they regard as dead weight--a "gift" which they themselves will have to pay for at some point in time by increased expenses of credits, and without the possibility that their income will be increased.

Obviously, it would be worthwhile finding a replacement for such an investment policy. An alternative is offered above all by giving what the policy today is deficient in--realistic possibilities, and the lack of economic motives for the farmers themselves to invest in new production from their own income, in order to realize greater income on the market. There are no motivations like these for the small, individual--but in the sum total, large--investments, and agrarian macropolicy, as seen from the individual examples in the contributions to this overview, does not accept, nor induce them.

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CSO: 2800/317

OUTPUT OF SEMIFINISHED PRODUCTS UP

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 15 May 84 p 5

[Text] A glance at the plan for this year's output by items in a comparison with last year leads to the conclusion that a growth of production has been envisaged for almost all items. To be sure, it is not so great in the case of bauxite and alumina, but it is quite convincing with respect to aluminum metal and semifinished aluminum products. One is also struck by the fact that considerably larger production of semifinished products has been planned for this year than last year.

Only sales of products on the domestic market will show how close we are coming to the commitment, which incidentally, is the only sound one and the only one that is economically profitable, to market aluminum through exports of machines, implements and equipment. Only then will it be verified over and over again as compared to exporting the metal in ingots. It is obvious, however, that it is not so easy for us to extricate ourselves from a conception of development which was perhaps the correct one in the past, but which is called into question by the present economic situation.

Structure and Volume of Production

<u>Product</u>	<u>Unit of Measurement</u>	<u>1983</u>	<u>1984</u>
Bauxite	Tons	3,500,367	3,511,000
Alumina	Tons	1,009,895	1,042,000
Aluminum metal	Tons	283,599	310,000
Semifinished products	Tons	168,570	210,520

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CSO: 2800/323

ALUMINUM PRODUCTION PLANS FOR 1984

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 15 May 84 p 5

[Text] Judging from the quantities of aluminum metal planned for this year, the producers are moderate optimists. That is, a production of 310,000 tons is envisaged, or nearly 20,000 tons more than the plan for last year. Even though there was a shortfall of several thousand tons, the year was nevertheless successful in view of the difficulties. First of all, the supply of electric power was not constant. And there were also other problems, especially in the supply of imported spare parts.

"Energoinvest," "Aluminij" and FEAL of Mostar are supposed to produce 92,000 tons of aluminum. Under the accord on joint investment, the following consumers can count on deliveries: "Novkabel" of Novi Sad 3,000 tons, the aluminum rolling mill in Sevojno 4,000 tons, "Impol" in Slovenska Bistrica 1,000 tons, "Elka" in Zagreb 3,500 tons, "Alumina" in Skopje 2,000 tons, "Soko-FEAL" in Listica 1,000 tons, and then "Juzna Morava" in Vladicin Han and "Djuro Salaj" in Nis 1,000 tons apiece, "Tipoplastika" in Gornji Milanovac 750 tons, and "Petar Drapsin" in Mladenovac 500 tons. This adds up to 18,750 tons.

At the same time the latter producer has intended 14,000 tons of aluminum it processes itself for consumption within "Energoinvest." These quantities have been distributed among "Aluminka" in Sipovo, "Alpro" in Vlasenica, "Kontejneri" in Mrkonjic Grad, "Metaloplastika" in Makarska, "Polietilenka" in Bihac, "Dalekovodi" in Danilovgrad and almost 3,000 tons to other small purchasers.

We should also recall that 1,000 tons go to the special-purpose industry.

The Aluminum Combine in Titograd has planned an output of 90,000 tons of aluminum this year. On the basis of the accord on joint investment, the domestic market will receive 32,000 tons. Of all the organizations which have invested capital, more than half of this quantity of aluminum, more accurately, 17,000 tons, will be taken by the rolling mill in Sevojno. Then come the "Mosa Pijade" Cable Industry in Svetozarevo, which can count on 10,000 tons, and "Djuro Salaj" in Nis 3,000 tons. The others will be delivered 2,000 tons.

"Boris Kidric" in Kidricevo plans an output of 46,000 tons primary aluminum. Out of that quantity it intends 9,000 tons for its own consumption. It will

deliver, then, 28,000 tons to "Impol" in Slovenska Bistrica, and 2,000 tons are intended for "Djuro Salaj" in Nis.

The structure of production with respect to the assortment is as follows:

Cast strip	6,200 tons
Cast wire	6,200 tons
Workable alloys for stamping	9,100 tons
Ingot-format for rolling	12,900 tons
Casting alloys	8,800 tons
Disks and evaporator plates	3,800 tons

A total of 40,500 tons are intended for the domestic market, as follows:

6,200 tons of cast strip, 2,200 tons of cast wire, 9,100 tons of workable alloys for stamping, 12,400 tons of ingots for rolling, and 7,000 tons of casting alloys.

The "Boris Kidric" Aluminum Industry in Sibenik plans to produce 82,000 tons of primary aluminum. Semifinished products have a share of 50,420 tons in the product mix. They include 42,600 tons of rolled aluminum products and 7,820 tons of stamped products.

The output of aluminum casting alloys is to be 12,000 tons.

The domestic market is to receive 25,130 tons of rolled products.

The raw materials required for the planned production of semifinished products of aluminum and casting alloys amounts to 62,420 tons of primary aluminum. Of those quantities 32,000 tons would come from our own production.

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ALUMINUM IMPORT NEEDS

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 15 May 84 p 5

[Text] If we see production, consumption, exports and imports in a four-way relation to one another, a certain discrepancy is coming about because of exaggerated obligations to foreign trading partners and the growth of the demands of the domestic market, in that we are importing many things which we have in excess of our established needs. Thus it seems that we will have to import 379,500 tons of bauxite, and then 118,070 tons of alumina, and some 60,000 tons of aluminum metal. At the same time the plans call for importing 24,000 tons of semifinished aluminum products.

At least \$200 million will have to be furnished to accomplish these imports. Nor, of course, is this the only burden on the production of aluminum. There are also the obligations arising out of credits taken to import equipment or the purely commercial loans from foreign sources of financing, at very high rates of interest.

All of this is determining the position in which the aluminum industry finds itself.

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EXPORTS DETERMINE DOMESTIC DEMAND

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 15 May 84 p 5

[Text] The character of the plans of producers of semifinished aluminum products is very important at this point, since the supply of producers of parts for various machines, devices and implements will depend on them. However, they are not able to deliver all the quantities of semifinished products to the entire processing chain. That is, it is almost certain that in spite of the higher profitability of marketing the aluminum through parts installed in machines and appliances, that they themselves will be exporting.

"Impol" in Slovenska Bistrica, according to the plan, is supposed to produce 48,000 tons of semifinished aluminum products. This output will be in jeopardy unless the necessary raw materials are furnished by the work organizations "Boris Kidric" in Kidricevo and EAL in Mostar.

The aluminum rolling mill in Sevojno plans an output of 40,000 tons of semifinished products, of which 22,700 tons are intended for the domestic market. This manufacturer is also counting on the deliveries of the Aluminum Combine in Titograd and EAL in Mostar. We should also emphasize that the combine in Titograd, just like "Impol," has not fully resolved the problem of raw materials.

"Djuro Salaj" in Nis plans to produce 11,000 tons of alloys and semifinished products. That requires obtaining at least 12,000 tons of the appropriate raw materials, that is, primary aluminum. The supply comes from the following sources: "Boris Kidric" in Kidricevo, the Aluminum Combine in Titograd and EAL in Mostar.

"Alumina" in Skopje plans an output of 16,000 tons of semifinished aluminum products, and it is relying on the deliveries of EAL in Mostar.

"Soko-Feal" in Listica plans to produce 6,000 tons of stamped products and 800 tons of products from the rolling mill. This organization is also counting on deliveries from all EAL in Mostar.

"Energoinvest" ("Alpro") in Vlasenica plans an output of 4,500 tons, 2,500 tons of this destined for the domestic market.

TOP of Zagreb is also in this group of producers, but it has not secured aluminum from domestic sources.

In the overall, if the plans are fulfilled, the factories manufacturing parts from aluminum would be able to count only on a portion, but by no means on all 200,000 tons of the planned semifinished products.

Production of Semifinished Products Planned in 1984

<u>Organization</u>	<u>Quantity</u>
"Boris Kidric" in Kidricevo	12,800 tons
Aluminum Combine in Titograd	12,000 tons
"Alpro" in Vlasenica	4,500 tons
"Impol" in Slovenska Bistrica	48,000 tons
"Alumina" in Skopje	16,000 tons
"Djuro Salaj" in Nis	11,000 tons
Aluminum rolling mill in Sevojno	40,000 tons
"Soko-Feal" in Listica	6,800 tons
"Boris Kidric" in Sibenik	50,420 tons

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